West Midlands Aggregates Working Party

Annual Report 2022 [2021 Data]

April 2023

Correct as of this date: 11 April 2023

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Contents

Acronyms

AWP	Aggregate Working Party
BAA	British Aggregates Association
BGS	British Geological Survey
BMAPA	British Marine Aggregate Producers Association
CDEW	Construction, Demolition and Excavation Waste
DLUHC	Department for Levelling Up, Housing and Communities
LAA	Local Aggregate Assessment
MPA	Mineral Products Association
NPPF	National Planning Policy Framework
SOCG	Statement of Common Ground
UDP	Unitary Development Plan
WDI	Waste Data Interrogator
WMAWP	West Midlands Aggregate Working Party

Glossary

Active/Inactive sites	Sites are described as active where material was produced at any time during 2021 and as inactive when the site was not in production during that period. Inactive sites include those that have been worked in the past and those that have yet to begin. The term 'inactive' replaces the term 'dormant' used in surveys prior to AM97 as the term 'dormant' acquired a more specific meaning under the terms of the Planning & Compensation Act 1991 and the Environment Act 1995.
Aggregates	Aggregates are defined as being hard, granular materials which are suitable for use either on their own or with the addition of cement, lime or a bituminous binder in construction. The most important applications for aggregates include concrete, mortar, roadstone, asphalt, railway ballast, drainage courses and bulk fill.
Development Plan	The complete set of policies and proposals for the development and use of land and buildings in an area. This includes adopted Local Plans and neighbourhood plans, and is defined in section 38 of the Planning and Compulsory Purchase Act 2004.
Duty to Cooperate:	Collaborative working with adjoining authorities, and other public bodies, regarding strategic issues which may have significant cross boundary impacts, during the preparation of Local Plans.
Landbanks	The stock of mineral reserves with valid planning permissions for their extraction but where their extraction has yet to take place. The length of the aggregate landbank is the sum in tonnes of all permitted reserves for which valid planning permissions are extant, divided by the annual rate of future demand based on the latest annual Local Aggregate Assessment. The landbank is usually calculated at a mineral planning authority level
Local Aggregate Assessment	An annual assessment of the demand for and supply of aggregates in a mineral planning authority's area.
LAA Aggregates Provision Rate (APR)	The annual rates of provision for aggregates as detailed in the Local Aggregate Assessment which planning authorities should use as an indicator of how much should be planned for in their area. This figure is used to calculate sand and gravel landbank in the region.
Managed Aggregate Supply System (MASS)	This system works through national, sub-national and local partners working together to ensure a steady and adequate supply of aggregate mineral across the country
Marine Aggregates	Sand and gravel dredged offshore

Mineral Plans / Mineral Local Plan	A specialist type of Local Plan for those planning authorities with responsibilities for minerals planning, which set of a framework for decisions involving minerals development.
National and Sub National Guidelines	An indication of the total amount of aggregate provision that the mineral planning authorities, collectively within each Aggregate Working Party, should aim to provide.
Permitted Reserves	In land use planning terms, reserves are those minerals that have planning permission for extraction. It includes reserves at active and inactive quarries but does not include reserves at dormant sites or sites that have not been granted planning permission. Permitted reserves are included in the landbank calculations.
Primary Aggregates	Naturally occurring mineral deposits, extracted specifically for use as aggregates and are used for the first time. Most primary aggregates are produced from hard, strong rock formations by crushing to produce crushed rock aggregate or from naturally occurring particulate deposits such as sand and gravel.
Recycled Aggregates	Produced from various sources including the demolition or construction of buildings and structures or from asphalt plantings as a result of work to resurface roads and from railway track ballast. Recycling involves the processing of the waste material so that it can be made into new materials for aggregate use.
Secondary Aggregate	Secondary aggregate is usually defined as aggregate obtained as a by-product of other quarrying and mining operations or as a by-product from industrial processes such as power station ash, glass (cullet) or railway ballast.
Statement of Common Ground	A written record of the progress made by strategic policy-making authorities during the process of planning for strategic cross boundary matters. For minerals plans, aggregate working parties are also expected to be treated as additional signatories.

Executive Summary

This Annual Monitoring Report for the West Midlands covers the calendar year 2021 and has been compiled by the West Midlands Aggregates Working Party (WMAWP).

The WMAWP was established to collect data and monitor the production and supply of aggregate minerals for each of the sub regions within the West Midlands, as well as the reserves of aggregate minerals covered by valid planning permissions and provide technical advice on the supply of and demand for aggregates from their areas.

The Aggregate Working Party is not a policymaking body but is responsible for data collection to facilitate planning by Mineral Planning Authorities (MPAs), national government agencies and the aggregate minerals industry, and to inform the general reader. Funding for the secretariat is provided by the Department for Levelling Up, Housing and Communities (DLUHC) but the members of the Aggregates Working Party provide their time on a voluntary basis.

This Annual Monitoring Report provides sales and reserve data for the calendar year 1st January – 31st December 2021. It should be noted that data for 1st January – 31st December 2019, has been taken from the Government's Aggregate Minerals Survey 2019 (AM2019). A full report covering aggregate data in 2019 has not been undertaken at the WMAWP level, as the national AM2019 undertook this assessment of aggregate demand and supply. A copy of the full report can be viewed at: https://www.gov.uk/government/publications/aggregate-minerals-survey-for-england-and-wales-2019

The Annual Monitoring Report provides information on aggregates in the West Midlands so that the WMAWP can contribute to the monitoring of the Managed Aggregate Supply System (MASS) and assess whether the West Midlands is making a full contribution towards meeting both national and local aggregate needs.

This report includes:

- Maps showing the geographical area covered by the WMAWP and the location of quarries and rail depots;
- Sales and reserves of primary aggregates in 2021, collected from the WMAWP Annual Monitoring Survey 2022;
- The landbank in the WMAWP area at 31st December 2021;
- Secondary and Recycled Aggregates figures in the WMAWP area;
- Information on minerals plans and policies in the WMAWP area;
- Information on aggregates sites and planning applications and;

- Information on the latest Local Aggregate Assessments prepared by the Mineral Planning Authorities

The key findings of this Annual Monitoring Report are as follows:

LAA Aggregates Provision Rate (APR)

The annual rates of provision for aggregates as detailed in the Local Aggregate Assessment which planning authorities should use as an indicator of how much should be planned for in their area. The LAA APR for this report is based on authorities' latest LAA rates within the past 5 years combined, where the authorities' latest LAAs were published over 5 years ago, the current 10-year average was used. In this 2021 WM Annual Monitoring Report the LAA APR for sand and gravel is 6.98mt. There is no crushed rock LAA APR determined for this report because due to maintaining confidentiality, only 1 out of 4 crushed rock producing authorities published an LAA rate in the past 5 years. Therefore, establishing the landbank for crushed rock in the WM AWP region was based on the 2021 10-year average sales figure.

Land-won Sand and Gravel

- Total land-won sand and gravel sales in 2021 of 8.09mt (7.15mt in 2020).
- Total land-won sand and gravel reserves at the end of 2021 of 96.97mt (91.07mt in 2020)
- Landbank at the end of 2021 of 12.97 years (12.20 years in 2020)

The collected data demonstrates a steady increase in the amount of sand and gravel sales, with sales in 2021 exceeding both the 10- and 3-year averages. Staffordshire continued to be the main production area of sand and gravel, accounting for 67% of the region's sales. All subregions except for Warwickshire show higher sales figures compared to last year.

Permitted reserves in the West Midlands at the end of 2021 were at 96.97mt, representing the highest figure in the past 10 year across the region and amounting to a landbank of 12.97 years when based on the LAA APR. This satisfies the requirement within the NPPF for mineral planning authorities to make provision for maintaining a landbank of at least 7 years for sand and gravel. Shropshire continued to maintain the highest level of reserves, representing a landbank of 28.6 years based on their LAA APR. Only one authority in the region, Worcestershire, shows a lower than 7-year landbank figure with 4.1 years based on the LAA.

Herefordshire's figures for 2021 were not included in any sand and gravel calculations due to data confidentiality.

Crushed Rock

- Total crushed rock sales in 2021 of 4.2mt (5.52mt in 2020)
- Total crushed rock reserves at the end of 2021 of 209.09mt (237.78mt in 2020).
- Landbank at the end of 2021 of years 50.7 years (60.19 years in 2020)

The collected data demonstrates a sharp decrease in the amount of crushed rock sales and reserves in the West Midlands, resulting in a lower land-bank compared to last

year. The 2021 sales figure exceeds the 10 year average, but it is lower than the 3 year average.

In contract to the slight increase in sales in the Herefordshire, Staffordshire and Warwickshire areas, Shropshire and Telford had a 38.1% drop in sales compared to last year. Due to lower reserves, the crushed rock landbank also dropped by 9.49 years to 50.7 years compared to last year when based on the 10-year average sales. However, this is still satisfying the requirement within the NPPF for mineral planning authorities to make provision for maintaining a landbank of at least 10 years for crushed rock.

Figures from Herefordshire, Staffordshire and Warwickshire are combined due to data confidentiality.

Overall Primary Aggregates figures

- Total primary aggregates sales in 2021 of 12.29mt (12.67mt in 2020)
- Total primary aggregates reserves at the end of 2021 of 306.06mt (328.85mt in 2020)

This demonstrates that there is an overall decrease primary aggregate sales and reserves in the West Midlands

A summary of key figures for 2021 are provided in Table 1 below.

Summary

From the data provided by MPAs in the West Midlands, it can be established that there are a number of largescale schemes in the pipeline including HS2 that will require significant quantities of aggregates. However, it is not currently possible to establish the likely total demand for minerals required for these large-scale projects, due to the lack of estimates of demand from those within the region, and the absence of a comprehensive list of projects outside the region.

Referring to the findings of the Aggregate Minerals Survey 2019, sales in the West Midlands as a proportion of consumption of aggregate minerals remain similar to previous surveys (83% in 2019/ 80% in 2014/ 81% in 2009) indicating little change in meeting local/ sub-national consumption. However, it is important to note that these figures will not have captured the significant take of minerals supplying the HS2 project and therefore the ability to meet local and national needs may be compromised. It is noted, however, that West Midlands consumption is dependent on imports of crushed rock from the East Midlands and South Wales.

Regarding the contribution made by quarries in the West Midlands to inter-regional/ national supply, it was agreed by the members of WMAWP that this is difficult to measure given the lack of up-to-date guidelines for sub-national aggregate provision.

Table 1 Dashboard key data summary

Aggregate	*Sales in 2021 (thousand tonnes)*	*Change in sales from previous year*	*10 year sales average (thousand tonnes)*	*3 year sales average (thousand tonnes)*	*Sales Trend (10 year)*	*LAA annual provision[1] (thousand tonnes)*	*Permitted reserves at 31 December 2021 (thousand tonnes)*	*Change in permitted reserves from previous year*	*Landbank (years)*	*Change in Landbank from previous years*
Land won Sand and Gravel	*8090*	↑	*6718*	*7433*	↑	*7455*	*96974*	↑	*12.97*	↑
Crushed Rock	*4202*	↓	*1088*	*1400*	↑	*N/A*	*209094*	↓	*50.7*	↓
Marine sand and gravel	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*				
Total Primary Aggregates	*12292*	↓	*10845*	*12307*	↑	*N/A*				
Secondary Aggregates	*N/A*	↑ or ↓	*N/A*	*N/A*	↑ or ↓	*N/A*				
Recycled Aggregates	*N/A*	↑ or ↓	*N/A*	*N/A*	↑ or ↓	*N/A*				

[1] This refers to the rate used to calculate the landbank.

West Midlands AWP Membership

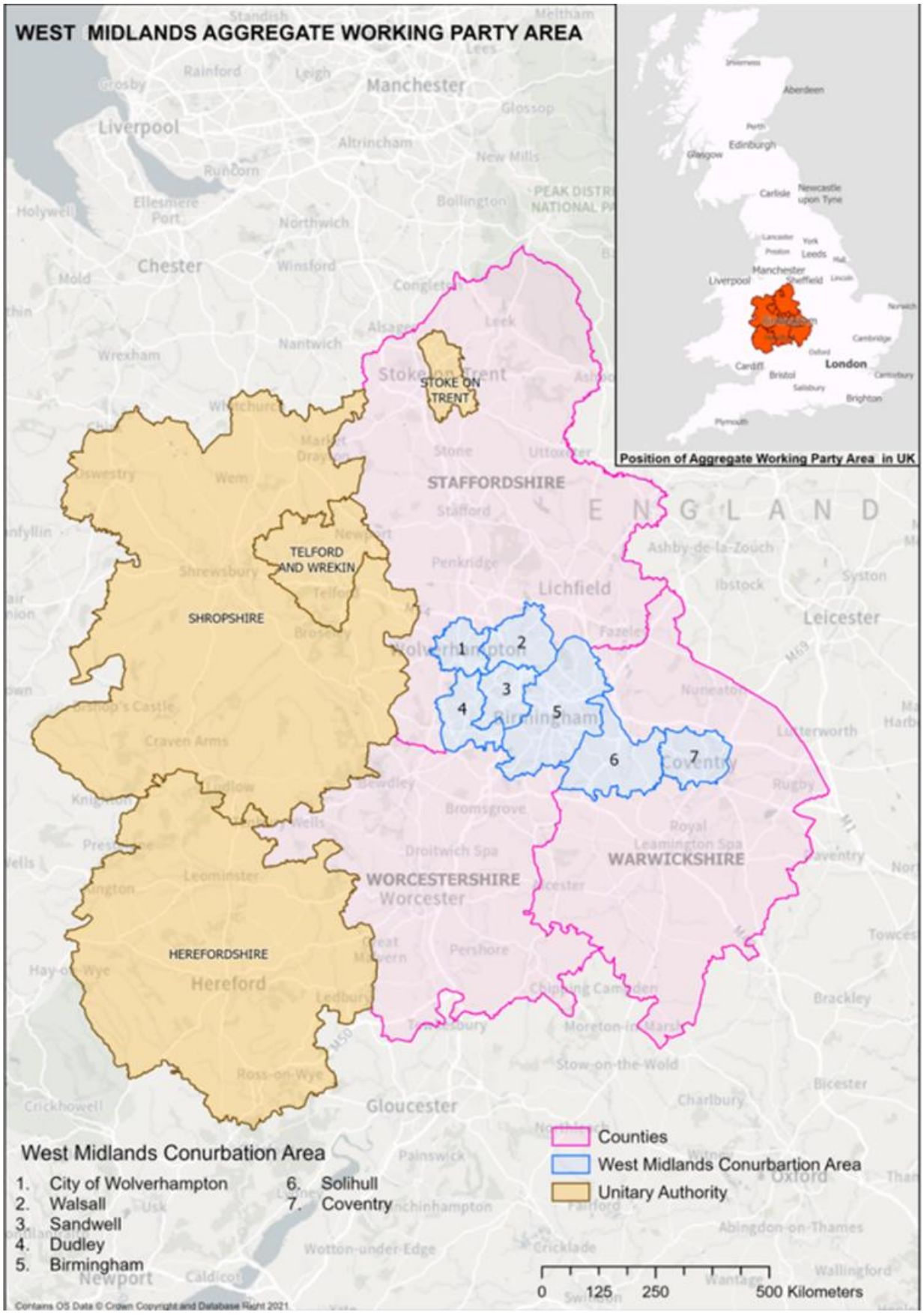
The West Midlands Aggregate Working Party (WMAWP) is one of nine similar working parties throughout England and two in Wales established in the 1970's to identify and consider likely problems in the supply of aggregate minerals. Today, Aggregate Working Parties are technical advisory groups of mineral planning authorities and other relevant organisations covering specific geographical areas who work together to:

- produce fit-for-purpose and comprehensive data on aggregate demand and supply in their area; and
- provide advice to individual mineral planning authorities and to the National Aggregate Co-ordinating Group.

The coverage of the WMAWP is detailed in Figure 1. It is made up of 14 mineral planning authorities within West Midlands:

- Herefordshire
- Worcestershire
- Shropshire
- Staffordshire
- Warwickshire
- Stoke-on-Trent
- Telford and Wrekin
- West Midlands Metropolitan Area
    - Birmingham
    - Dudley
    - Sandwell
    - Walsall
    - Wolverhampton
    - Coventry
    - Solihull

Figure 1 West Midlands AWP Area Mineral Planning Authorities



In 2022 the WMAWP was Chaired by Tony Lyons from Warwickshire County Council and Secretarial duties covered by Dorottya Faludi from Capita. Membership comprises mineral planning authority and aggregate industry representation within the West Midlands region. AWP Members contributing to the running of the WMAWP are as follows:

Mineral Planning Authority Representatives

- Birmingham City Council
- Coventry City Council
- Dudley Metropolitan Borough Council
- Herefordshire Council
- Sandwell Metropolitan Borough Council
- Shropshire Council
- Solihull Council
- Staffordshire County Council
- Stoke City Council
- Telford and Wrekin Council
- Walsall Council
- Warwickshire County Council
- City of Wolverhampton Council
- Worcestershire County Council

Minerals Industry Representatives

- Aggregate Industries UK
- APT Group
- Breedon Group
- British Aggregates Association
- Cemex UK
- Hanson
- Mineral Products Association
- Tarmac

Other

- DLUHC
- Environment Agency

The WMAWP met twice in 2022 (see Appendix 1 for details of AWP meetings held this year) which is according to the Terms of Reference (TOR), and minutes of meetings are available for public inspection. Planning Practice Guidance states that the role of an AWP is three-fold:

- to consider, scrutinise and provide advice on the Local Aggregate Assessment of each mineral planning authority in its area;
- to provide an assessment on the position of overall demand and supply for the Aggregate Working Party area, including whether, in its view, the area is making a

full contribution towards meeting both national and local aggregate needs. This assessment should be based on local aggregate assessments and should be informed by other economic data. It should also include an indication of emerging trends of demand in the Aggregate Working Party area; and

- to obtain, collect and report on data on minerals activity in their area. This includes annual data on sales, permissions and mineral reserves in their area, and data on recycled and secondary sources.

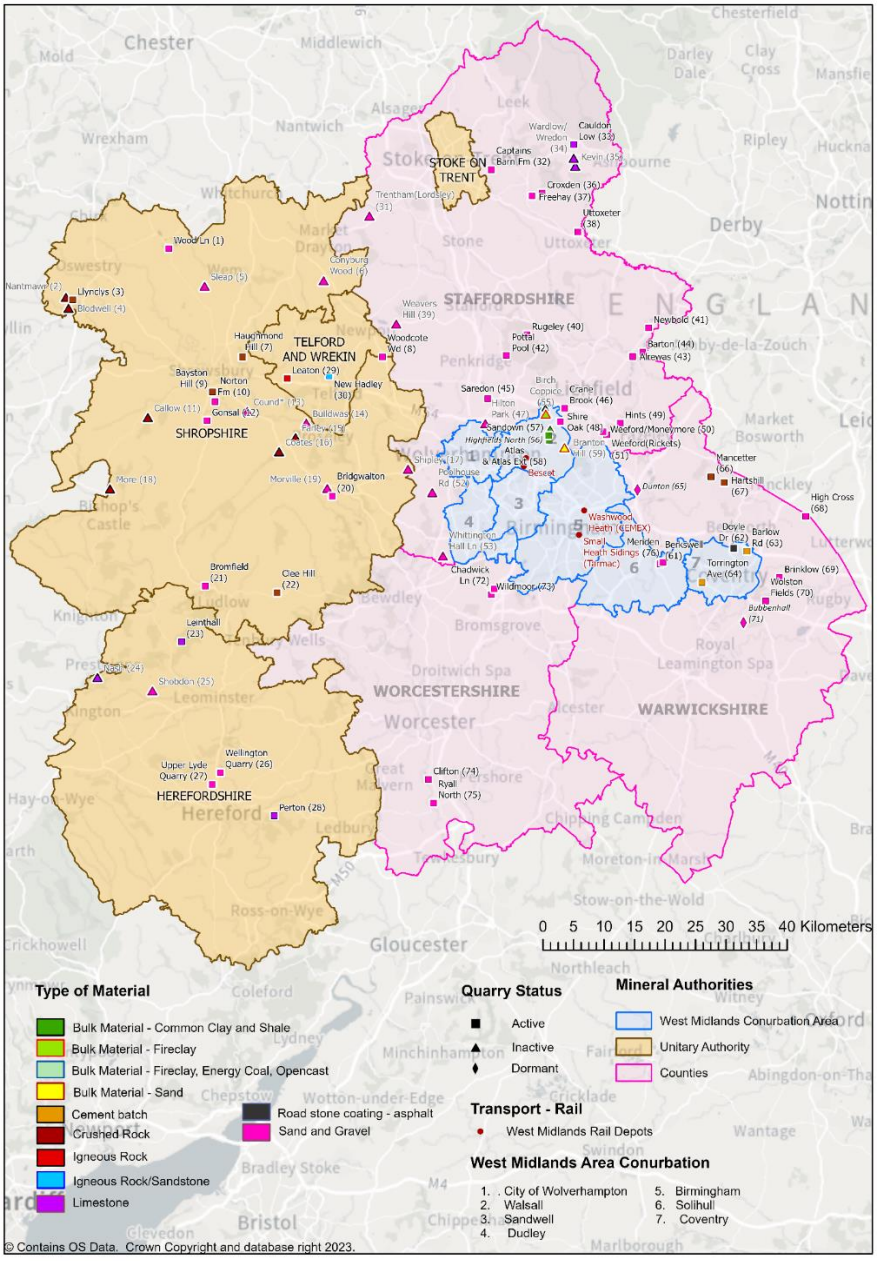
Primary Aggregates

Introduction

Data on primary land-won aggregates (sand and gravel and crushed rock) sales and reserves has been derived both from the Local Aggregate Assessments (LAAs) produced by the Mineral Planning Authorities (MPAs) within the West Midlands and the annual survey returns provided by operators.

Land Won Aggregates

Figure 2 Location of Quarries, Wharves and Rail Depots in 2021



Sales of Primary Aggregates

Table 2 below shows sales of land-won aggregate sand and gravel and crushed rock sales in the West Midlands over the 10-year period from 2012-2021. With the exception of 2019, the figures for land won sales have been derived from individual LAAs or have been provided by the relevant mineral planning authority. For 2019, sales' figures have been taken from Table 9f 'Sales of primary aggregates by MPA and principal destination sub-region in 2019: West Midlands' in the final collation of the AM2019 Survey produced by the BGS.

Sand and Gravel

There is no significant variation in the sales of land won sand and gravel year on year between 2012 and 2021, variations generally remained in the range of 0.1 to 0.8mt per annum, although there is a trend of a growth in sales across this period. Sales figures have been ranging between 5.5mt and 8mt in the past 10 years, however this is lower than the region's sand and gravel production in the 1990's and early 2000s, when sales figures were around 9-10mt per annum. In 2005 sales fell to only 5.8mt and figures in the coming years remained hovering at that level but since 2012 there has been a slow but steady growth in sand and gravel production in the West Midlands. Sales in 2019 showed a slight dip to 7.06mt whilst sales in 2020 increased again to 7.15mt.

The total land-won sand and gravel sales in 2021 were 8.09mt. This is an increase from 2020 sales figures which were 7.15mt. Sand and gravel sales in 2021 were above both the 10-year average and 3-year average sales figures, demonstrating that 2021 was an above average year for sand and gravel sales. It should be noted however that in 2021, sand and gravel figures from Herefordshire were discounted from all sand and gravel calculations to maintain confidentiality, therefore the sales and reserves figures should be treated with caution.

For land won sand and gravel, Staffordshire continues to be the main producer in the region, a position it has held in the past 10 years, with sales generally growing each year and peaking at 5.4mt in 2021.

Following a significant drop in sand and gravel sales in 2020, Worcestershire has seen sales rebound in 2021 to levels above any in the previous 10 years, totalling at 0.7mt which is a 0.32mt difference from the previous year.

Shropshire showed a significant change in sand and gravel sales in the past 10 years, having hovered around 0.65-0.75mt per annum from 2012-2018, the figures have been much more volatile in 2019, 2020 and 2021, and the 2021 figure being far greater than the 10 and 3 year averages.

Crushed Rock

Between 2012 and 2021 there has been a general increase in crushed rock sales in the West Midlands. There is a slight variation year on year with sales growing between 2012 and 2014, then it shows a drop in 2015, but sales growth picks up and it is steadily rising until 2020. The total crushed rock sales in 2021 were 4.2mt which is a sharp decrease from 2020 sales figures which were 5.52mt. Still, it exceeds the 10 year sales average, but it is lower than the 3 year sales average for the region. Despite the slight fluctuation in

sales figures in the past 10 years, the West Midlands contribution to the country's crushed rock output has been significantly lower compared to the 1990's and before.

Crushed rock is extracted in only four out of fifteen local authority areas in the West Midlands. Sales of crushed rock mainly come from Shropshire and Telford and Wrekin, however there was a significant drop in 2021. 2.6mt was the total crushed rock output from the subregion which is 1.6mt less than the previous year. This is the second lowest figure in the subregion in the past 10 years, as sales were at 2.4mt in 2012. In 2021 Shropshire and Telford's contribution to the region's total output of crushed rock amounted to just under 62% (down from 76% in 2020).

Despite the slight increase in sales in the Herefordshire, Staffordshire and Warwickshire areas, the decrease in Shropshire and Telford was more significant and the overall sales figure remained low in 2021. The AM2019 Survey shows that the West Midlands has been less active in crushed rock production than other regions in the country, and made up only 5.9% of the country's total output.

As shown in Table 2, the figures for Herefordshire, Staffordshire and Warwickshire are amalgamated between 2012-2021 to maintain commercial confidentiality.

Table 2 Primary Aggregate Sales in WMAWP Area (in thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	10 year average	3 year average
Land Won Sand and Gravel												
Shropshire and Telford	640	660	630	730	740	670	710	370	890	1100	714	787
Worcestershire	620	620	520	540	400.00	460	600	650	380	700	535	577
Herefordshire			100	100	130	150	190	310	170	C	164	240
Staffordshire	3400	3740	4180	4470	4610	4740	4840	5040	4850	5430	4530	5107
Warwickshire	400	210	280	320	330	330	390	430	470	360	351	420
West midlands Conurbation	460	490	500	530	580	480	360	260	390	500	455	383
Total Land Won Sand and Gravel sales	**5520**	**5720**	**6210**	**6690**	**6790**	**6830**	**7090**	**7060**	**7150**	**8090**	**6719**	**7433**
Crushed Rock												
Shropshire and Telford	2410	2880	3130	2760	2680	3090	3010	3620	4200	2600	3038	3473
Worcestershire	0	0	0	0	0	0	0	0	0	0	0	0
Herefordshire	710	820	660	610	1230	1270	1380	1280	1320	1602	1088	1400
Staffordshire												
Warwickshire												
West midlands Conurbation	0	0	0	0	0	0	0	0	0	0	0	0
Total Crushed Rock	**3120**	**3700.00**	**3790**	**3370**	**3910**	**4360**	**4390**	**4900**	**5520**	**4202**	**4126**	**4874**
Total Aggregate Sales	**8640**	**9420**	**10000**	**10060**	**10700**	**11190**	**11480**	**11960**	**12670**	**12292**	**10845**	**12307**
Notes: C = confidential figure												

Permitted Reserves and Infrastructure Capacity

The NPPF states that mineral planning authorities should plan for a steady and adequate supply of aggregates. This includes amongst other matters, making provisions for the maintenance of landbanks of at least 7 years for sand and gravel and at least 10 years for crushed rock, whilst ensuring that the capacity of operations to supply a wide range of materials is not compromised. Determining permitted reserves provide a framework for sustainable resource management, indicating potential decline in supply and ensuring that extraction does not exceed the available resources or cause undue harm to the environment. Permitted reserves can fluctuate depending on a variety of factors, including approval of planning applications, changes in aggregate demand and environmental considerations. For the purposes of annual reports and the assessment of landbanks, reserves tend to be quantified on the basis of the tonnage of mineral within a planning permission area that can be used for aggregate purposes. The permitted reserves of sand and gravel and crushed rock in the WMAWP area at 31 December 2021 are set out in Table 3 below.

Sand and Gravel

Reserves of sand and gravel are considerably less than those of crushed rock. The permitted reserves of sand and gravel in the West Midlands at 31 December 2021 were 96.97mt. This is the highest levels of sand and gravel permitted reserves in the past 10 years and it is an increase from 2020 at a figure of 91.07mt. The past 10 years show that permitted reserves of sand and gravel in the West Midlands has been hovering between 90.5mt and 96.9mt.

Consistently in the past 10 years and in 2021, the largest proportions of permitted reserves of sand and gravel are in quarries in Staffordshire (63%).

Crushed Rock

The permitted reserves of crushed rock in the West Midlands at 31 December 2021 were 209.09mt. This is a decrease in permitted reserves from 2020 at a figure of 237.78mt.

Permitted reserves of crushed rock are found in only four out of fifteen local authority areas in the West Midlands. The crushed rock reserve figures for Herefordshire, Staffordshire and Warwickshire have been amalgamated between 2014-2021 to maintain commercial confidentiality on the crushed rock reserve figures across these MPAs due to the small number of operational crushed rock quarries within those counties.

Table 3 shows there had been a significant and consistent decline in the amount of total permitted reserves since 2012 when they stood at a high of 326.4mt. Due to a decrease in permitted reserves in crushed rock in all areas of the West Midlands, the overall amount of reserves has dropped in 2021 to the lowest levels in 10 years.

Table 3 Permitted Reserves in WMAWP Area (in thousand tonnes)

Aggregate	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sand & Gravel										
Shropshire and Telford	12860	13950	12270	10430	11290	11340	10930	15240	17050	19460
Worcestershire	6570	6010	2500	540	4290	3470	2940	2610	2500	3500
Herefordshire			2760	2660	2750	2600	2480	2310	2680	C
Staffordshire	66980	62260	68090	67860	63630	62940	66780	64110	58980	61454
Warwickshire	4330	4960	4440	3870	6690	6360	6200	6070	5600	5500
West midlands Conurbation	4580	5390	4850	5180	5860	3990	3260	4710	4260	7060
Total Sand & Gravel Permitted Reserves	95320	92570	94910	90540	94510	90700	92590	95050	91070	96974
Crushed rock										
Shropshire and Telford	124810	113850	109550	104050	114440	113200	100300	92600	115080	92000
Worcestershire	0	0	0	0	0	0	0	0	0	0
Herefordshire	11790	11540	197920	200270	202140	104210	127910	123900	122700	117094
Staffordshire	189840	188610								
Warwickshire										
West midlands Conurbation	0	0	0	0	0	0	0	0	0	0
Total Crushed Rock Permitted Reserves	326440	314000	307470	304320	316580	217410	228210	216500	237780	209094
Total Permitted Reserves	421760	406570	402380	394860	411090	308110	320800	311550	328850	306568
Notes: C = confidential figure										

Imports and Exports

The latest available data on imports and exports was collected via the National Aggregates Minerals Survey (AMS) 2019[2], which was undertaken jointly between the Ministry of Housing Communities and Local Government (now known as the Department of Levelling Up Homes and Communities) and the British Geological Survey (BGS). These four yearly surveys are the only published source of information on aggregate sales by destination region. No imported and exported aggregate data was collected through the WMAWP for this report. The following text is taken from the final published version of the AMS 2019.

'Quarry operators cannot always be sure of where their products will be sold, particularly for 'collect' sales. Consequently it has not been possible to allocate all sales of primary aggregates to definite destinations by either region or sub-region.'

'Inter-regional flows of crushed rock are significantly larger than for sand and gravel because of the overall larger demand for crushed rock, particularly for roadstone, and because regions such as the South East, London and the East of England have only minor, or inferior quality, crushed rock resources. In addition, the consistency and extent of some hard rock deposits permits their working on a very large scale, enabling much wider geographical areas to be served economically by rail. The transfer of crushed rock between regions is, therefore, more complex and uneven than for sand and gravel. It reflects the combined pattern of the extent of crushed rock resources and markets /population (demand).'

The AMS 2019 data showed that the West Midlands did not import either sand and gravel or crushed rock from outside England and Wales.

Table 3 of the AMS 2019 shows that the West Midlands is net importer of crushed rock and net exporter of sand and gravel. Looking at a national scale, West Midlands' import and export activities are not as significant as other regions' in the country. The AMS 2019 established that *'The traditionally large crushed rock producers in England, the East Midlands and South West, have the largest exports representing 49% (14.3 Mt) and 33% (8.4 Mt) of their respective total crushed rock sales. The main importing regions were the East of England (8.8 Mt), mainly from the East Midlands and the South West, the North West (6.2 Mt), mainly from the East Midlands and North Wales, and the South East (5.3 Mt), mainly from the South West.'* In terms of crushed rock, the AMS 2019 says *'The leading exporters of sand and gravel were the East Midlands (2.2 Mt), London (2.1 Mt) and the South East (1.7 Mt), and the leading importing regions were the East of England (2.3 Mt) and the South East (1.6 Mt). The majority of marine sand and gravel was used within the region where it was landed.'*

Table 5f of the AMS 2019 shows that the West Midlands overall imports 35% of its consumption of primary aggregates. This figure is mostly comprised of crushed rock because the West Midlands imports around 50% of its crushed rock consumption whereas with sand and gravel it is only 11%.

This shows that the West Midlands is more self-sufficient in sand and gravel than crushed rock. The declining crushed rock reserves indicate the possibility that more crushed rock

[2] Aggregate Minerals Survey 2019 - https://www.gov.uk/government/publications/aggregate-minerals-survey-for-england-and-wales-2019

imports will be required in the future if no planning applications come forward or are approved.

Table 5f of the Aggregate Mineral Survey 2019 demonstrates that the largest proportion of imports of both sand and gravel and crushed rock into the West Midlands were from the East Midlands. 0.43mt of sand and gravel and 2.77mt of Crushed rock was imported from the East Midlands.

Secondary and Recycled Aggregates

Introduction

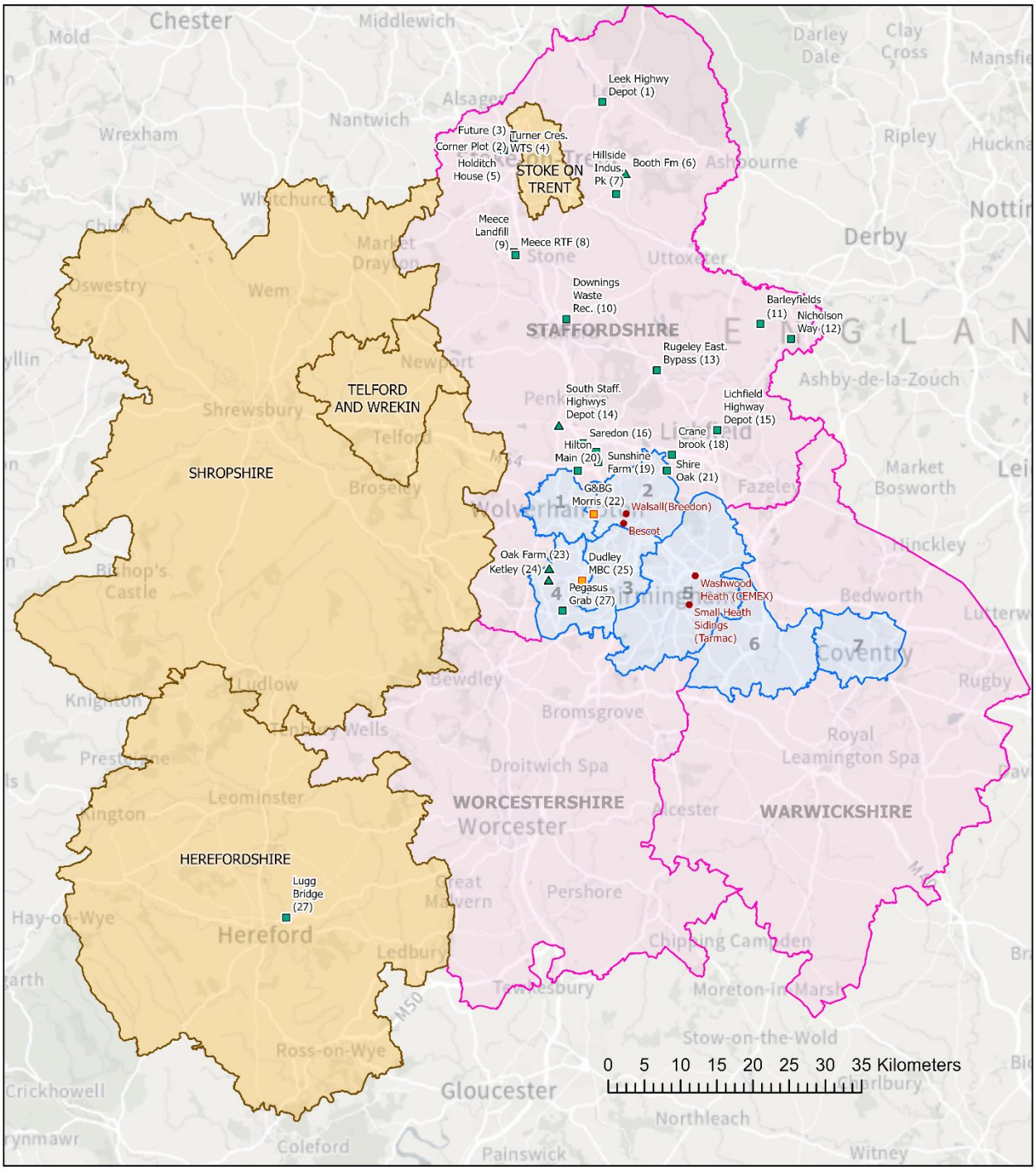
The NPPF (paragraph 210) requires mineral planning authorities to take account of the contribution made by substitute or secondary and recycled materials and minerals waste before considering the extraction of primary materials whilst aiming to source minerals supplies indigenously.

The best available data for recycled and secondary aggregates is that provided through analysis of information contained in the Environment Agency's Waste Data Interrogator (WDI). The WDI has been used to identify the amount of construction, demolition and excavation waste (CD&EW) produced and handled at licenced waste facilities within each Waste Planning Authority and is presented by sub-region in the table below. It is likely to only represent a proportion of the recycled aggregates in circulation. The most up-to-date data available from the Environment Agency Waste Data Interrogator is from 2021.

It is important to understand the data limitations associated with secondary and recycled aggregates. Most notably regarding the WDI the data within the WDI is collected from the returns from permitted facilities and records only waste received, and waste exported from sites, but the data reported is not 'sales'.

Secondary aggregates, where certain quality protocol specifications are met, is considered to be non-waste and is therefore not included within the waste tonnage returns. The data within the WDI does not account for mobile crushers or recycling and re-use that occurs on individual construction sites. The tonnage of recycled aggregates reported in the WDI is likely to only represent a proportion of the recycled aggregates in circulation and only presents a high- level view of CDEW in the region. These figures are only estimates and should be treated with caution.

Figure 4 Location of recycled and secondary aggregate sites in 2021



West Midlands Recycled Aggregate Sites

Status

- Active
- Inactive

West Midlands Secondary Aggregate Sites

Status

- Active
- Inactive

Mineral Authorities

- West Midlands Conurbation Area
- Unitary Authority
- Counties

Transport - Rail

- West Midlands Rail Depots

West Midlands Area Conurbation

1. . City of Wolverhampton
2. Walsall
3. Sandwell
4. Dudley
5. Birmingham
6. Solihull
7. Coventry

Secondary Aggregates

Secondary aggregates are defined within the NPPF as 'waste from china clay, coal and slate extraction and spent foundry sand. These can also include hydraulically bound materials'.

Secondary aggregates, where certain quality protocol specifications are met, is considered to be non-waste and is therefore not included within the waste tonnage returns.

Recycled Aggregates

Recycled aggregates are primarily derived from construction, demolition and excavation waste which has been processed to achieve a marketable quality. This processing may either be carried out with imported inert waste at fixed recycling sites, often located within a quarry, a landfill site, or waste transfer station, or at a construction site using mobile plant to process the material arising from demolition being carried out. The aggregates derived from this waste stream are then distributed for use offsite or are used on-site.

Within the West Midlands, a significant proportion of the wastes recycled for aggregate use are recycled at demolition/ construction sites using mobile processing plants and indeed often reused on-site.

The tonnage of recycled aggregates reported in the WDI is likely to only represent a proportion of the recycled aggregates in circulation and only presents a high- level view of CDEW in the region. These figures are only estimates and should be treated with caution.

Table 4 CD&E Waste Arisings (Environment Agency, 2021)

Planning Authority	Amount Produced (tonnes)	Amount Managed (tonnes)
Herefordshire	120,896.029	130,644.975
Shropshire	261,216.652	177,854.586
Telford and Wrekin	45,395.904	109,382.92
Staffordshire	1,189,151.276	2,370,872.688
Warwickshire	1,127,473.115	1,807,999.293
Worcestershire	418,872.685	425,432.304
West Midlands Conurbation	3,049,746.13	2,602,351.088
Stoke-on-Trent	119,783.5	557,540.252
Totals	**7,924,225.079**	**8,182,078.106**

Trends and Analysis

Herefordshire

Sand and gravel sales and reserves data provided through the 2021 annual survey cannot be published for reasons of commercial confidentiality. Assessment of future demand indicates that there will be a need for additional reserves of sand and gravel to become operational before the end of the Minerals and Waste Local Plan (MWLP) period (2041). Whichever method of demand forecasting is used, the two currently active quarries must cease operations by 2029 and 2032, therefore provision is made in the emerging MWLP to address this and increase resilience, through the allocation of new sites and areas of search.

In terms of crushed rock, data on sales and reserves provided through the annual surveys cannot be published for reasons of commercial confidentiality, and it is reported in an amalgamated figure with Staffordshire and Warwickshire. Herefordshire relies significantly on imports of crushed rock. Even if similar levels of reliance were to continue over the MWLP period (up to 2041), permitted reserves may not be sufficient to meet demand, due to restrictive planning conditions on permitted operations. If the county were to become self-sufficient in production, there are likely to be insufficient permitted reserves to meet demand over the plan period. There is likely to be a need for additional reserves of crushed rock to be permitted up to 2041. Allocations and areas of search are being developed through the emerging MWLP.

Recycled aggregates could have an increasingly important role to play in reducing the reliance on imports of aggregates in Herefordshire in the future. Herefordshire produced recycled aggregate from the waste recovery facility at the Lugg Bridge facility near Hereford. During 2019 and 2020, Lugg Bridge sales amounted to below 50% of its permitted production capacity. Demand for recycled aggregate from waste is set to increase up to 2041. The Lugg Bridge facility is allocated in the emerging Minerals and Waste Local Plan (MWLP) for an extension to its operational capacity. Strategic employment sites, industrial estates and active mineral workings are also identified for additional waste recovery capacity to meet forecast demand.

Shropshire and Telford and Wrekin

Shropshire has reported its highest sand and gravel sales figures in 2021 in the last 10 years. The market area for sand and gravel aggregates produced in Shropshire is generally local and whilst some material is supplied into adjacent areas to the north and west, only a limited amount of sand and gravel produced from Shropshire is currently exported eastwards to the main markets in the West Midlands conurbation due to the availability of more proximate and higher quality materials closer to these markets, although Shropshire continues to supply significant amounts of sand and gravel for construction activity in Telford. These trends are expected to continue.

The area is currently responsible for producing over half of the regional requirement for crushed rock. Production of crushed rock from a single site in Telford & Wrekin contributes about a quarter of the annual production. Crushed rock is mainly used as engineering fill,

roadstone and asphalt in road construction and maintenance. High specification aggregate is exported by both road and rail to a wider regional and national market area.

Whilst there are some existing and potential sources of secondary aggregates and a large number of local recycling facilities, low values and high transport costs and distances are likely to limit the contribution which these materials can make to supply.

The rates of housing and employment development in Shropshire and Telford & Wrekin have started to recover following the recession, and this has increased demand for construction aggregates.

Staffordshire

The quarrying of aggregate minerals is the most significant minerals extraction in Staffordshire in terms of quantity of production. Aggregate minerals are produced mainly from deposits of sand and gravel across the county but also from limestone in the Staffordshire Moorlands. The supply of aggregates within the county is supplemented by recycling construction, demolition and excavation wastes as well as by aggregate mineral from other parts of the country, particularly crushed rock from the East Midlands.

During 2021 sand and gravel sales in Staffordshire exceeded 5mt in 2019 and 2021. This is greater than the target in Policy 1 in the Minerals Plan. The 3-year average 5.1mt exceeds the 10-year average sales which has now increased to 4.5mt. The reserves increased as well despite the increase in sales. The landbank stands at just over 12 years based on the 3-year average which is only 0.3mt less than the Minerals Plan's provisions and it is well above the 7-year requirement. There were 15 sand and gravel and 1 crushed rock quarries operating in Staffordshire in 2021.

Based on the level of received and determined applications, it is assessed that the plan level of provision could be made until 2029. The 3-year average indicates a greater trend in the increasing demand for aggregates which is influenced by national strategic projects like HS2.

Warwickshire

There are two types of sand and gravel deposits in Warwickshire: river terrace deposits of the River Tame and River Avon and its tributaries and glaciofluvial deposits in the Rugby area and to the southeast of Coventry.

Warwickshire continues to make a contribution towards the supply of primary aggregates within the county from a small number of sites. While the 3-year average exceeds the 10-year average the rate of increase is very small and not significant in terms of supply calculations. The adopted plan made provision for future growth in the county and elsewhere but this is yet to materialise into increased production capacity, sales and permitted reserves. However, a planning application for a new site allocated in the plan has been received and others are in the pipeline. While a significant part of HS2 Phase 1 lies within the county only recently has the project indicated a need for borrow pits to supplement the level of materials required. The supply of aggregates is supplemented by recycling construction, demolition and excavation wastes from a number of sites and this is expected to continue.

West Midlands Conurbation

The West Midlands Conurbation consisting of Birmingham, Dudley, Sandwell, Walsall, Wolverhampton, Coventry and Solihull. Most of these authorities are struggling with resourcing therefore facing difficulties in monitoring their aggregates production.

There are no active primary won mineral sites currently operational within Coventry, Birmingham, Dudley and Sandwell. It is not established whether there are any active primary won minerals sites operating in Wolverhampton.

In Walsall there is one active primary won sand and gravel site, however it was not transacting any sales in the monitoring year of 2021. The operator had only undertaken a test extraction with a small stockpile on site and as yet have not recommenced extraction or sales. It may be that there will be some to record come the next monitoring year. There are three inactive sites in Walsall, but there is a total 5.86mt permitted reserves in the area.

There is little recycled aggregates activity in Solihull since December 2018 at Meriden Quarry.

Worcestershire

There are two distinct types of sand and gravel deposits in Worcestershire: the bedrock deposit solid sands of the Kidderminster Formation and Wildmoor Sandstone Formation, and the surface river terrace deposits of the rivers Severn and Avon and glacial deposits found in association with boulder clay. Indicators of increasing demand in Worcestershire suggest that the production guideline for primary sand and gravel should be increased significantly above the 10-year sales average. A significant uplift is considered to be appropriate after assessing Worcestershire's ability to supply sand and gravel, as resources exist, the Minerals Local Plan (2018-2036) allocates a significant number of areas of search, and there is significant interest in bringing sites forward shown by the minerals industry in response to "calls for sites" for allocation in the emerging Mineral Site Allocations Development Plan Document, as well as a number of pre-application discussions and planning applications under consideration. However, there are some concerns in relation to continuity of supply in the near future due to the low landbank of remaining permitted reserves and the permitted timescale of some existing sites.

Worcestershire has no permitted reserves, no productive capacity and no landbank for crushed rock. However, whilst the 10-year sales average for crushed rock sales is 0 tonnes and there has been no production of crushed rock in Worcestershire since 2010, it is important to recognise that there is demand for crushed rock to meet needs within Worcestershire, and there may also be an increasing need for crushed rock to be supplied from within Worcestershire as reserves are diminished elsewhere. This indicates that the annual production guideline should be increased above the 10-year average. The production guideline for crushed rock in Worcestershire is unable to be calculated, but it is explicitly greater than 0 tonnes.

It is recognised that significant levels of infrastructure development are proposed in the Local Plans and Strategic Economic Plans in and around Worcestershire which will create

some demand for aggregate minerals from within Worcestershire. However, there is a lack of data to be able to estimate the level of future demand for aggregate resources which local infrastructure developments might create, and whether this is likely to be significantly higher or lower than levels of demand over the last 10 years to facilitate understanding of the adequacy of the 10-year sales average or scale of change which may be required.

Worcestershire has been able to meet its own needs for sand and gravel, and there is ongoing demand for supply from Worcestershire as part of the Managed Aggregate Supply System, but the data does not indicate whether such demand is likely to increase or decrease in future.

Overall

It is difficult for most MPAs to determine the level of sales, permitted reserves and consumption due to the lack resources and updated guidelines. MPAs reported that local plan examinations are taking too long and take up too much of their resources that it obstructs them in focusing on other matters such as monitoring their aggregates production and consumption, reaching out and building relationships with quarry operators, and preparing yearly LAAs. These then result in a setback for reporting their consumption, sales and demands data back to the AWP and the Annual Monitoring Report will not be able to provide a full picture whether the West Midlands' contribution towards national and local requirements is sufficient.

Some MPAs have put their local plan review on hold due to the similar challenges, due to insufficient staff to commit full time and potential new legislation as part of the Levelling Up and Regeneration Bill.

The West Midlands Aggregate Working Party has been seeking to work closely with HS2 to better understand the implications for minerals supply from the West Midlands. The latest figures supplied to the West Midlands AWP by HS2 indicate that between 2020 and 2027, HS2's demand for resources from within the West Midlands may be approximately 50% of current production levels. Therefore, in order to also continue supplying existing markets, production in the West Midlands region will require a 50% increase to meet the extra demand placed upon the region by HS2.

Major Construction Projects or Developments

Major construction projects have a significant effect on the aggregate supply within a region. The West Midlands has large development growth aspirations, particularly within and surrounding Birmingham. The construction of HS2 phases 1, 2a and 2b will have a major impact on aggregate demand in the West Midlands region, with construction on phase 2b expected to finish in 2038.

Table 5 below outlines the major construction projects or developments that are proposed within the West Midlands.

Table 5 Major Construction Projects or Developments

Project/Development Name and Location **web-link or reference point if available (e.g. The NSIP reference)**	**Time Scale (estimated start and end date)**	**Comments**
High Speed 2 (Phase 1)	Work has already commenced and construction/ commissioning is to take place in stages and end in 2026.	National High Speed railway connecting London with Birmingham (and connection with West Coast Mainline and Handsacre). This section now includes the need for borrow pits in Warwickshire.
High Speed 2 (Phase 2a)	The Hybrid Bill approving construction was introduced into Parliament in July 2017 and secured Royal Assent in February 2021. Initial works are underway. This section of the scheme includes proposals for borrow pits within Staffordshire.	National High Speed railway connecting London with Manchester. This phase will run from Handsacre to Crewe
High Speed 2 (Phase 2b)	Hybrid Bill introduced to parliament on 24th January 2022	National High Speed railway connecting London with Manchester. This phase will run from Crewe to Manchester (Eastern leg to Leeds will no longer be constructed).
Willington C Gas Pipeline	SoS decision 17th December 2014 and on 9th December 2016 SoS confirmed transfer of benefit of DCO	The application for gas pipeline approximately 27km in length, buried for its entire length, with an above ground installation at the start point.
West Midlands Interchange	A decision on the application for a development consent order for West Midlands Interchange was taken on the 4th May 2021 and has now been accepted.	Likely to include the following elements: An intermodal freight terminal, rail served warehousing, connection to West coast mainline, new road infrastructure and structural earthworks.
M6 junction 13 to junction 15 smart motorway	Main works completed August 2021, but Stopped Vehicle Technology needs to be installed before all lane running commence.	Improve the M6 by making it a smart motorway between junction 13 and 15.
M54 and M6 Link Road	No specific date. Development Consent Order issued 21st April 2022.	Proposed link between the M54 and the M6.

Development Plans and Mineral Policies in WMAWP Area

Local Planning Authorities are required to prepare Local Plans which include policies to aid the determination of planning applications and to set out the development of a county/borough/district over a 15-year period. This includes policies for minerals development, which mineral planning authorities must prepare. Some authorities will include mineral planning policies within their overall Local Plans, whilst others will prepare specific Minerals and Waste Local Plans. Table 6 below details the status and progress of Local Plans in the WMAWP area.

Following the decision of the 4 Black Country LPAs to cease work on the Black Country Local Plan in 2022, each authority decided to produce their own local plans. Dudley will be producing its own local plan with the first stage of consultation (Reg 18 Preferred Options) currently scheduled for summer 2023.

Table 6 Minerals Plans Information

Mineral Planning Authority / Authorities	**Plan Name / Mineral DPD**	**Status**	**Change since previous annual monitoring report** **(Yes or no)**	**Comments**	**Estimated quantity of minerals allocated in Plan**	
					Total sand and Gravel (Quantity from total which has been permitted to date)	**Crushed Rock** (Quantity from total which has been permitted to date)
Staffordshire	*The Minerals Local Plan for Staffordshire (2015-2030)*	Adopted in 2017	No			
Worcestershire	Minerals Local Plan	Adopted in July 2022	Yes	The Minerals Local Plan allocates areas of search for sand and gravel and policy criteria to enable both sand and gravel and crushed rock development. Individual sites are to be allocated in a separate Minerals Site Allocations DPD.	0.572Mt	0.163Mt
Worcestershire	Mineral Site Allocations DPD	Regulation 18 anticipated	No			

		summer 2023				
Herefordshire	Herefordshire Minerals & Waste Local Plan	At examination	No	Adopted Core Strategy 2015 which is in the early stages of an update process. The draft Minerals & Waste Local Plan was submitted for examination in March 2022.		
Dudley MBC / West midlands Conurbation						
Shropshire	Shropshire Local Plan (2016 – 2038	At examination				
Warwickshire	Minerals Local Plan (2018-2032)	Adopted July 2022	Yes	n/a	7.51mt	0mt
Birmingham	The Birmingham Development Plan (BDP) 2031	Adopted in 2017	No			
Telford and Wrekin	The Telford & Wrekin Local Plan 2011-2031	Adopted in 2018	No			
Coventry	Coventry Local Plan(2011 - 2031)	Adopted in 2017	No			
Solihull	Soilhull Local Plan	Submitted for examination in May 2021	No		Total sand and gravel in emerging plan 4.1mt, quantity permitted 0.4mt.	
Stoke-on-Trent	Stoke-on-Trent Local Plan 2020-2040	Issues and Options consultation closed 21 June 2021	No	Early stages of preparation		
Total						

Planning applications in WMAWP Area

The West Midlands WMAWP monitors the nature and outcome of planning applications for primary aggregates extraction in the West Midlands on an annual basis. Table 7 below lists the planning applications for aggregate production within the West Midlands which were either decided or pending a decision during both 2021.

There were 6 applications granted planning permission in 2021 (with 2 of these still awaiting for the legal agreements to be formalised).

Table 7 Planning Applications and Decisions in WMAWP Area

Mineral Planning Authority	Site Name	Grid Reference	Operator / Applicant	Type of Application	Mineral	Date Submitted	Decision date	Decision	Tonnage	Planning permission end date
Shropshire	Land east of Much Wenlock Road, Buildwas, near Ironbridge		Harworth Group Plc	Full	Sand and gravel	19/12/2019	21/09/22	Granted	1.9Mt	
	Extension to Condover Quarry		Hanson	Full	Sand and gravel	18/03/2019	13/05/2021	Granted	2.854Mt	
Solihull	Meriden Quarry	423139 281245	NRS Wastecare	Full	Recycling facility and associated fixed plant	7/9/2021	14/03/2021	Granted	N/A	
Worcestershire County Council	Lea Castle, Kidderminster	383959 278992	NRS Aggregates Ltd	Full	Sand and gravel	14/01/2020	27/05/2022	Pending during 2021, refused in 2022, appeal submitted in 2022 (not yet decided)	3Mt	N/A
	Pinches 4, Bromsgrove	396794 275686	Timmins	Full	Sand and gravel	07/01/2020	N/A	Pending	1Mt	N/A
	Ryall's Court Quarry	SO8510 4122	Cemex UK Materials Ltd	Full	Sand and gravel	27/04/2020	N/A	Pending during 2021, granted in 2022	0.475Mt	Within 3 years of commencement
	Sandy Lane Western Quarry	394981: 276313	NRS	Full	Sand	30/07/2021		Granted	0.245Mt	
	Wilden Lane, Stourport on Severn	382650:272 887	AC Buck & Son Ltd	Full	Sand	27/10/2020		Refused	0.3Mt	

	Bow Farm, Ripple	SO 875365	M C Cullimore (Gravels) Ltd	Full	Sand and gravel	14/11/2019	08/11/2022	Pending during 2021, granted in 2022	1.5Mt	Within 9 years of commencement of the development
Staffordshire County Council	Barton	316019/419 319	Hanson	Full	Sand and gravel	15/01/2018	29/09/2021	Granted	6Mt	2032
	Alrewas	313762/417 514	Tarmac	Full	Sand and gravel	21/10/2019	21/06/2021	Granted	1.5Mt	2029
	Captains Barn Farm	345589/395 017	Dalecrete	S.73	Sand and gravel	25/11/2020	25/03/2021	Granted	0.25Mt	2026
	Notes: TYPE: N – New; E – Extension; ET – extension of time; G – Greenfield; B – Borrow Pit; R – Renewal; C – Conditions pursuant; C of E – Certificate of Lawfulness; C o U – Change of Use; PD – Permitted Development; WP – Installation of water pipe; VC – Variation of Condition. MINERAL: S/G Sand and Gravel; G Gravel; S Sand; B/S Building Sand; L Limestone; C/R Crushed Rock; SA Secondary Aggregates; RA Recycled Aggregates C = confidential figure									

Local Aggregate Assessments

Each Mineral Planning Authority is required to produce an annual Local Aggregate Assessment which provides:

- An analysis of local aggregate supply;
- A statement on forecasted demand for aggregates; and
- An assessment of the balance between demand and supply.

Paragraphs 061-071 relating to Local Aggregate Assessments in national Planning Practice Guidance, and the 'Practice Guidance on the Production and Use of Local Aggregate Assessments' produced by the Planning Officers' Society and the Mineral Products Association, provide advice on how this should be done.

Only Staffordshire and Worcestershire produced LAAs with data from 2021. Herefordshire produced an LAA with combined data from 2019 and 2020 and Shropshire has an LAA with 2019 data. All other areas in the West Midlands either have LAAs that are over 5 years old or have no LAAs. Authorities in the area are facing resourcing issues which result in poor monitoring of the production and consumption of aggregates. This is negatively impacting updating their LAAs.

Table 8 2021 Local Aggregate Assessments in the West Midlands

Mineral Planning Authority	***Complete (Yes or No)***	***LAA Figure***		***Calculation Method***
		Sand and Gravel	***Crushed Rock***	
Staffordshire	*No (2021 in draft version)*	*5Mt/a*	*n/a*	*S&G provision based on figure used in MLP/ no figure for crushed rock on basis that data is confidential due to single operational site.*
Herefordshire	*No (2019-2020)*	*0.16Mt*	*n/a*	
Walsall	*No (2015)*	*WMCA (in million tonnes) Permitted Reserves: 5.4, Unpermitted Resources in Walsall Area of*	*There has been no production of crushed rock in the West Midlands Metropolitan Area since 2007 when*	*The length of the landbank is calculated by dividing permitted reserves by the annual*

		Search: 6.4, [same] in Solihull Area of Search: 2.5 - Total Supply: 14.3 *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.*	*the last quarry closed, and there are no winnable deposits of crushed rock remaining in the Area.*	*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.*
Solihull MBC	*No (2015)*	*0.5Mt*		
Shropshire	*No (2018-2019)*	*0.71Mt*	*3.01Mt*	*Production guideline based on 10-year average. No other relevant local information which indicates deviation from this average is currently required.*
Worcestershire	*Yes*	*0.827Mt*	*>0 tonnes*	*This LAA proposes a deviation from the 10-year average for both the sand and gravel and crushed*

				rock production guidelines.
Warwickshire	*No (2017)*	*0.5Mt*	*N/A*	*Production of sand and gravel based on the 10-year average of 2007-2016 which strikes a reasonable balance between some years of economic growth and some years of recession.*

Conclusions

At 31 December 2021, the reserves of sand and gravel in the West Midlands overall are above the minimum 7 year landbank (at a figure of 12.97 years) and in the case of crushed rock above the minimum 10 year landbank (at a figure of 50.7 years). It should be noted however that 2021 sand and gravel figures from Herefordshire were discounted from all sand and gravel calculations to maintain confidentiality, therefore the sales and reserves figures should be treated with caution.

Regarding the contribution made by quarries in the West Midlands to inter-regional/ national supply, it was agreed by members of WMAWP that this is difficult to measure given the lack of up-to-date guidelines for sub-national aggregate provision. Referring to the findings of the Aggregate Minerals Survey 2019, sales in the West Midlands as a proportion of consumption of aggregate minerals remain similar to previous surveys (83% in 2019/ 80% in 2014/ 81% in 2009) indicating little change in meeting local/ sub-national consumption. However, it is important to note that these figures will not have captured the significant take of minerals supplying the HS2 project and therefore the ability to meet local and national needs may be compromised. It is noted, however, that West Midlands consumption is dependent on imports of crushed rock from the East Midlands and South Wales.

Due to the lack of updated LAAs in the region, there is not enough data to conclude whether mineral planning authorities in the West Midlands are meeting their requirements separately.

The West Midlands is mainly self-sufficient in sand and gravel production and it is importing 50% of its crushed rock consumption. There is no substantial export from the region to other areas, 1.3mt sand and gravel was exported according to the AM2019.

HS2 has an impact on the crushed rock consumption in the region. The absence of up-to-date national guidelines is increasing the uncertainties around aggregate demand for major national projects like HS2.

Most MPAs in the region are experiencing resourcing difficulties which result in poor monitoring of aggregate production and consumption. This results in low levels of updated LAAs in the area.

Appendix 1: AWP Meetings

Meeting Date	Link to minutes of the meeting	Summary of Key Points
23 June 2022		***To be updated***
24 November 2022		

Appendix 2: Primary Aggregates sites in WMAWP area

Mineral Planning Authority	Site Name	Cross Reference to Figure 2	Type of site (Wharf, rail depot, quarry etc)	Operator	Grid Reference	Mineral	Status	Planning Permission End Date
Warwickshire	Wolston Fields Quarry, Rugby BC	70		Smiths Concrete	SP395744	Sand and Gravel	Active	2026
	Brinklow Quarry, Rugby BC	69		Astons	SP417792	Sand and Gravel	Active	2047
	High Cross Quarry, Rugby BC	68		KSD Limited	SP465888	Sand and Gravel	Inactive	2046
	Dunton Quarry	65		KSD Limited	SP188931	Sand and Gravel	Dormant permission	2042
	Bubbenhall Quarry	71		Smiths Concrete	SP362713	Sand and Gravel	Inactive	2024
	Mancetter Quarry	66		Tarmac Trading Limited	SP309955	Crushed Rock	Active	2025

	Hartshill Quarry	67		Crown Waste Management	SP324947	Crushed Rock	Active	2042
Shropshire	Nantmawr Quarry*	**2**		Midland Quarry Products Limited	SJ 253 242	Crushed Rock	Inactive	
	Wood Lane Quarry	1		Tudor Griffiths	SJ 422 328	Sand & Gravel	Active	
	Norton Farm Quarry	10		Hanson Aggregates	SJ 497 075	Sand & Gravel	Active	
	Bromfield Quarry	**21**		Plymouth Estates	SO 481 773	Sand & Gravel	Active	
	Gonsal Quarry	**12**		Salop Sand & Gravel	SJ 484 044	Sand & Gravel	Active	
	Bridgwalton Quarry	**20**		Salop Sand & Gravel	SO 689 920	Sand & Gravel	Active	
	Woodcote Wood	**8**		NRS Ltd	SJ 773 149	Sand & Gravel	Active	
	Shipley	**17**		JPE Holdings Ltd	SO 813 963	Sand & Gravel	Site benefits from resolutions to grant planning permission	
	Sleap Quarry	**5**		Hanson Aggregates	SJ 480 265	Sand & Gravel	Inactive	

	Morville Quarry	**19**		Lafarge Aggregates	SO 685 936	Sand & Gravel	Inactive	
	Buildwas Quarry	**14**		Harry Price Sand and Gravel	SJ 647 041	Sand & Gravel	Inactive	
	Cound Quarry*	**13**		Hanson Aggregates	SJ 550 060	Sand & Gravel	Inactive	
	Conyburg Wood Quarry	**6**		Hanson Aggregates	SJ 675 274	Sand & Gravel	Inactive	
	Haughmond Hill Quarry	**7**		Aggregate Industries	SJ 542 148	Crushed Rock	Active	
	Clee Hill Quarry	**22**		Midland Quarry Products Limited	SO 599 762	Crushed Rock	Active	
	Llynclys Quarry	**3**		Tarmac Trading Limited	SJ 264 242	Crushed Rock	Active	
	Bayston Hill Quarry	**9**		Tarmac Trading Limited	SJ 493 091	Crushed Rock	Active	
	Farley Quarry	**15**		"non-mineral owner"	SJ 629 017	Crushed Rock	Inactive	
	Callow Quarry	**11**		Tarmac Trading Limited	SJ 387 050	Crushed Rock	Inactive	
	Coates Quarry	**16**		Aggregate Industries	SO 602 994	Crushed Rock	Inactive	

	More Quarry*	**18**		Tarmac Trading Limited	SO 325 933	Crushed Rock	Inactive	
	Blodwell Quarry	**4**		Midland Quarry Products Limited	SJ 257 229	Crushed Rock	Inactive	
Worcestershire County Council	Clifton	74	Quarry	Tarmac	**384712:245233**	Sand & Gravel	Active	
	Ryall North	75	Quarry	Cemex	**386900:236900**	Sand & Gravel	Active	
	Wildmoor	73	Quarry	Salop Sand & Gravel	**394983:275913**	Sand & Gravel	Active	
	Chadwich Lane	72	Quarry	Salop Sand & Gravel		Sand & Gravel	Active	
Staffordshire	Alrewas	43	Quarry	Tarmac Trading Ltd	SK 175 125	Sand and Gravel	Active	2027
	Barton	44	Quarry	Hanson UK	SK 195 155	Sand and Gravel	Active	2030
	Captains Barn Farm	32	Quarry	Dalecrete	SK 950 455	Sand and Gravel	Active	2026
	Cauldon Low	33	Quarry	Aggregate Industries UK Ltd	SK 084 474	Limestone	Active	2042
	Crane Brook	46	Quarry	Mac Quarries	SK 070 064	Sand and Gravel	Active	2033
	Croxden	36	Quarry	Tarmac Trading Ltd	SK 033 417	Sand and Gravel	Active	2023
	Freehay	37	Quarry	Hanson UK	SK 015 411	Sand and Gravel	Active	2025
	Hilton Park	47	Quarry	Hanson UK	SJ 952 45	Sand and Gravel	Inactive, worked in past, remaining reserves	2042
	Hints	49	Quarry	Tarmac Trading Ltd	SK 163 462	Sand and Gravel	Active	2025
	Kevin	35	Quarry	Tarmac Trading Ltd	SK 086 465	Limestone	Inactive, worked in past,	2028

							remaining reserves	
	Weeford (Moneymore)	50	Quarry	Hanson UK	SK 133 026	Sand and Gravel	Active	2042
	Newbold	41	Quarry	Aggregate Industries UK Ltd	SK 205 195	Sand and Gravel	Active	2029
	Poolhouse Road	52	Quarry	n/a	SO 853 927	Sand and Gravel	Inactive, worked in past, remaining reserves	2042
	Pottal Pool	42	Quarry	Hanson UK	SJ 973 147	Sand and Gravel	Active	2034
	Rugeley	40	Quarry	Cemex	SK 010 181	Sand and Gravel	Active	2031
	Saredon	45	Quarry	NRS Saredon Aggregates Ltd	SJ 944 80	Sand and Gravel	Active	2028
	Shire Oak	48	Quarry	JPE Aggregates	SK 063 042	Sand and Gravel	Active	2025
	Trentham (Lordsley)	31	Quarry	Hanson UK	SJ 750 380	Sand and Gravel	Inactive, worked in past, remaining reserves	2042
	Uttoxeter	38	Quarry	Aggregate Industries UK Ltd	SK 097 351	Sand and Gravel	Active	2016
	Wredon/ Wardlow	34	Quarry	Tarmac Trading Ltd	SK 087 572	Limestone	Inactive, worked in past, remaining reserves	2046
	Weavers Hill Sand Pit	39	Quarry	GRS (Roadstone Ltd)	SJ 794 203	Sand and gravel	Inactive, worked in past, remaining reserves	2022
	Weeford (Ricketts)	51	Quarry	H.D. Ricketts	SK 133 026	Sand and Gravel	Active	2042

	Whittington Hall Lane	53	Quarry	n/a	SO 870 820	Sand and Gravel	Inactive, worked in past, remaining reserves	2042
Coventry City Council	Barlow Road	63	Cement batcher	Tarmac	52.44238705992948, -1.4562049377169894	N/A	Active	
	Torrington Avenue	64	Cement batcher	Hanson	52.3980869834779, -1.5671173496219273	N/A	Active	
	Doyle Drive	62	Road stone coating - asphalt	Aggregate Industries	52.44796377405389, -1.490272966905218	N/A	Active	
Telford and Wrekin	Leaton Quarry	29	Quarry	Breedon	Easting: 361554 Northing: 311305	Igneous rock	Active End date 03/02/2037	
	New Hadley	30	Quarry	Michelmersh Brick UK Ltd	Easting: 368400 Northing: 311750	Igneous rock Sandstone	Active End date 2032	
Herefordshire	Upper Lyde Quarry	27	Quarry	Hereford Quarries Limited	Easting: 349311 Northing: 244918	Sand and gravel	Active	
	Perton	28	Quarry	Perton Quarry Ltd		Limestone	Active	
	Nash Quarry	24	Quarry	Tarmac	Easting: 330443 Northing: 262410	Limestone	Inactive	
	Shobdon Quarry	25	Quarry	Tarmac	Easting: 339452 Northing: 260251	Sand and gravel	Inactive	
	Leinthall	23	Quarry	Breedon Group	Easting: 344294 Northing: 268083	Limestone	Active End date: 2027	
	Wellington Quarry	26	Quarry	Tarmac	Easting: 350904 Northing: 248046	Sand and gravel	Active End date: 31/12/2032 Restoration: 31/12/2034	

	Lugg Bridge Quarry			Hereford Quarries Limited	Easting: 353707 Northing: 242449	Recycled Aggregates	Active End date: 20/09/2029	
Solihull	Berkswell Quarry	61	Quarry	Cemex	4.228E+11	Sand and gravel		
	Meriden Quarry	76	Quarry	NRS Wastecare		Sand and gravel		
Walsall	Atlas Quarry	58	4. Clay Working Site	Ibstock Brick Ltd	SK046015	Bulk Material - Common Clay & Shale	Active	
	Atlas Quarry Extension - Recordon Land *(adj. Atlas Quarry)*	58	4. Clay Working Site	Ibstock Brick Ltd	SK046015	Bulk Material - Common Clay & Shale	Unknown	
	Branton Hill Quarry Extension	59	1. Primary Aggregates Site	Bliss Sand & Gravel Co Ltd	SK067002	Bulk Material - Sand	Pre-Operational	
	Sandown Quarry	57	4. Clay Working Site	Wienerberger UK	SK044016	Bulk Material - Common Clay & Shale	Active	
	Highfields North	56	3. Clay/ Shale		SK045023	Bulk Material - Common Clay & Shale	Dormant Permission	
	Brownhills Common	54	3. Clay/ Shale and 5. Coal (opencast)	Potters Clay & Coal Company Ltd	SK039059	Bulk Material - Fireclay, Energy - Coal, Opencast	Dormant Permission	
	Birch Coppice	55	3. Clay/ Shale	Potters Clay & Coal Company Ltd	SK039057	Bulk Material - Fireclay	Inactive	

	G & BG Morris		2. Secondary Aggregates Site	G & BG Morris		Secondary - Construction and Demolition Waste	Operational	
Notes: C = confidential figure *Status: O=operational; NO=Non Operational, D=Dormant, C=Closed, R=Restored/Redeveloped*								