Warwickshire Local Aggregate Assessment 2018 – 2023 data

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1. Executive Summary

1.1 This is the first Local Aggregate Assessment since 2018, and therefore it covers sales and other data from years 2018 – 2023 including the period of the coronavirus pandemic. MAP 1 shows the current West Midlands Mineral Planning Authority boundaries.

Dashboard

	Sand and Gravel (million tonnes)	Crushed Rock (million tonnes)
2023 Sales	0.372E[1] ⇧	Not Available [2]
3-year average sales (as of 1 Jan 2024)	0.350E ⇩	Not Available
10-year average sales (as of 1 Jan 2024)	0.360E ⇧	Not Available
Number of sites (2024)	2 operational 2 non-operational 1 active processing site ⇔	2 operational
Landbank of permitted reserves	7.14 ⇩	Not available

⇔ No change from previous years

⇩ Down from previous years

⇧ Up from previous years

[1] E = Includes estimated data

[2] Not available means that the data for Warwickshire cannot be disclosed because it is amalgamated with figures for Herefordshire and Staffordshire to maintain commercial confidentiality due to the small number of operational crushed rock sites in those counties and also for the West Midlands Aggregates Working Party Annual Monitoring Report.

Comparison with previous years

Sales	Sand and Gravel (million tonnes)	Crushed Rock (million tonnes)
2023	0.372 E[3]	Not available (N/A)
2022	0.319	NA
2021	0.433	NA
2020	0.390	NA
2019	0.462	NA
2018	0.392	NA
3-year average		
2023	0.350 E	Not available (N/A)
2022	0.380	NA
2021	0.428	NA
2020	0.414	NA
2019	0.401	NA
2018	0.357	NA
10-year average		
2023	0.362E	Not available
2022	0.346	NA
2021	0.355	NA
2020	0.353	NA
2019	0.347	NA
2018	0.376	NA
Number of sites		
2023	2 operational 2 non-operational 1 active processing site	2 operational
2022	As above	2
2021	As above	2
2020	As above	2
2019	As above	2
2018	As above	2

[3] E = Includes estimated data

1.2 According to the British Geological Survey (BGS)[4] some of the spreads of river gravels may not be of commercial value due to being too limited in extent, thickness, or quality.

1.3 There are four sites with permitted reserves but only two sites are currently producing sand and gravel and there is one active processing site. Because one of the active sites has declined to provide figures for 2023 for both the AWP AMR and government AMS23 an estimate has been made based on a series of past returns with the agreement of the BGS, so this allows the figures to be reported in this LAA. There are no sites served by rail or water in the county.

1.4 There is a plan requirement to produce 6.525 million tonnes up to 2032 and the adopted minerals local plan allocates 6 sites for sand and gravel working with a potential tonnage of 7.51 million tonnes.

1.5 There is the potential for the demand for construction minerals/materials to be offset by partial and/or incidental extraction of minerals through consideration and determination of planning applications for non- mineral development.

1.6 Planning applications for two of the allocations in the adopted plan have been submitted with a combined tonnage 4.1 million tonnes and a third is expected shortly.

1.7 The average sales of sand and gravel over the 6 years covered by this LAA is 0.394 million tonnes.

1.8 Permitted reserves in the county have dropped from 6.2 million tonnes in 2018 to 3.63 million tonnes due to major reassessments in 2020 and 2022. The landbank is however still above the level required of 7 years at 7.14.

1.9 There is a regionally important resource of hard rock between Atherstone and Nuneaton and that is home to two operating sites but due to confidentiality and reporting the sales and permitted reserves for these sites are combined with figures from Herefordshire and Staffordshire. There are no allocations for crushed rock in the adopted mineral local plan. There have been no examples yet of any prior extraction of crushed rock in the county. There are currently no applications submitted to increase production or the permitted reserves of crushed rock in the county.

[4] British Geological Survey and Department of the Environment, Transport, and the Regions (1999) Mineral Resource Information for Development Plans. Warwickshire and West Midlands: Mineral Resources.

1.10 For crushed rock, the need to combine the figures with other MPAs tends to mask local issues but according to previous evidence there was a landbank of permitted reserves well above the 10-year requirement and that situation has not changed.

1.11 Taking the figures at the beginning and the end of this LAA there has been a 27% increase in sales of crushed rock across the three combined authorities. By contrast the level of permitted reserves has declined by 58% from 202 million tonnes in 2016 to 118 million tonnes in 2023. This is the lowest level of reserves for over 10 years. No production rate has previously been set for crushed rock due to the need to amalgamate the figures with other mineral planning authorities for confidentiality and reporting reasons.

1.12 There is no evidence that Warwickshire receives any marine aggregates.

1.13 In the absence of evidence that the proportion of recycled aggregate material used in Warwickshire is likely to vary from the national proportion, this Local Aggregates Assessment does not rely on any significant alterations to the proportion of supply. On this basis, this LAA assumes that the contribution of substitute, secondary and recycled materials is already accounted for prior to considering the sales figures for primary aggregates.

1.14 In 2019 Warwickshire imported 308,000 tonnes of sand and gravel but sold 462,000 tonnes the majority of which was used in the county (71%). In 2023 321,000 tonnes was imported and 372,000 tonnes exported making it a net exporter. Warwickshire is a net importer of crushed rock. The majority of the crushed rock produced is sold in the county.

1.15 Based on the national 4 yearly Aggregate Mineral Surveys data sand gravel consumption declined up to 2019 before increasing. For crushed rock consumption continues to grow.

1.16 The 3-year average for sand and gravel matches the sales figure for 2023. Since the 2017 LAA the average has increased by only 63,000 tonnes. The 3-year average for crushed rock is a combined figure for Warwickshire, Staffordshire, and Herefordshire and that is rising.

1.17 The sub regional apportionment is not a material factor in determining future demand of primary aggregates in the county. There are no up-to-date National and Sub-National Guidelines.

1.18 There is no correlation between housing completions in Warwickshire and sand and gravel sales from Warwickshire. It is nonetheless the case that housebuilding is a significant consumer of aggregate materials. The clear direction of travel is for a substantial increase in housing development so a

failure to secure adequate permitted reserves could compromise the ability to deliver the required housing numbers to the required timescales.

1.19 There is a lack of data available in Warwickshire regarding the relationship between employment development and aggregate supply.

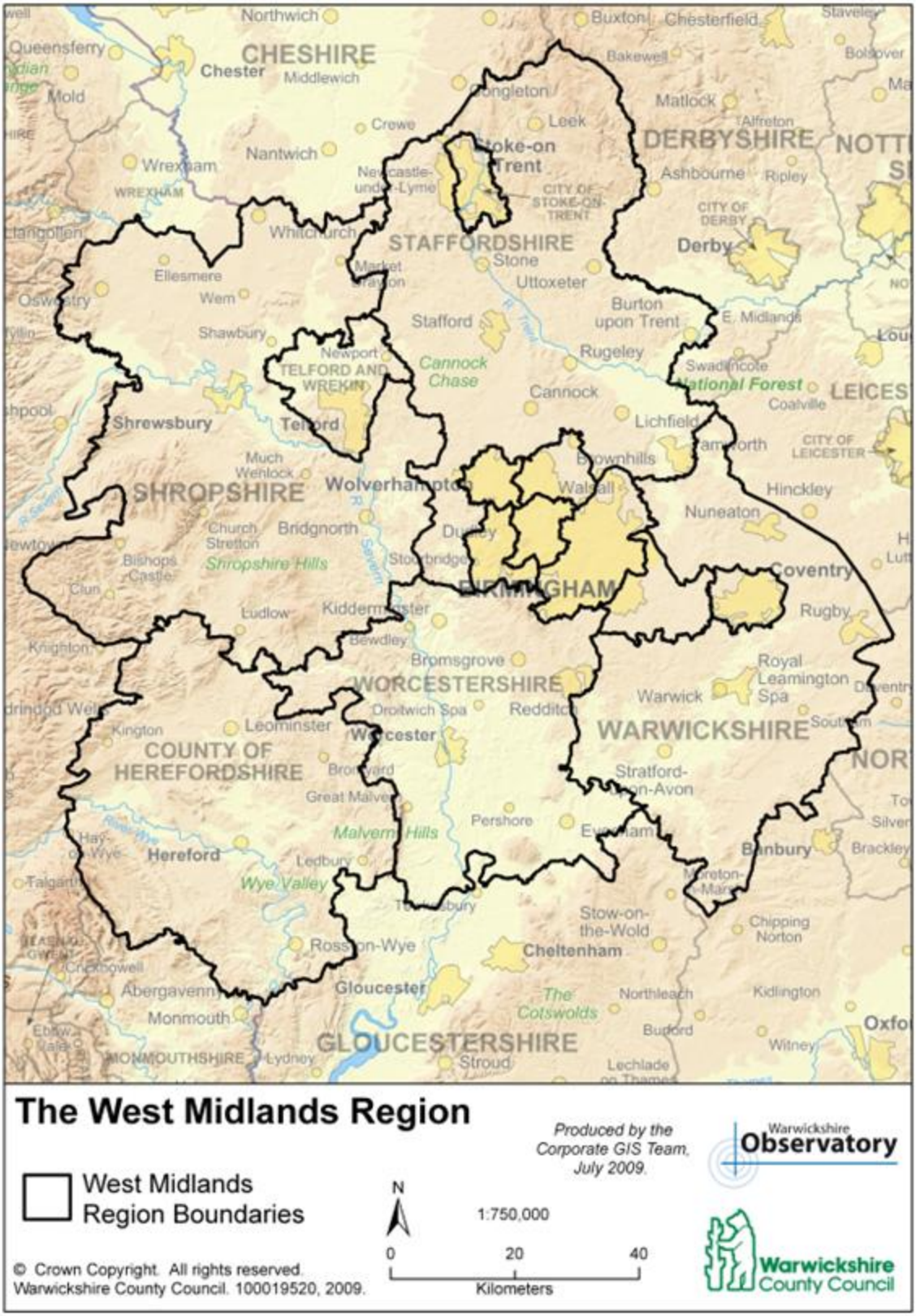
1.20 There are a large number of infrastructure projects in the pipeline both within Warwickshire and in adjoining areas and they are very unlikely to be supplied with construction aggregates from the county even if further capacity is permitted in the coming months and sites are brought on stream.

1.21 None of the NSIP projects impacting on Warwickshire have yet provided information on the amount of materials (construction materials, waste, primary and secondary aggregates) that will be required to complete construction due to the final detailed designs having not been signed off through the Development Consent Order Examination and Consenting process.

1.22 The future demand for aggregates in relation to HS2 construction in Warwickshire is expected to be limited. This is primarily due to the nature of materials required – particularly concrete – and the lack of sites in the county supplying materials but also to supplies being transported in from elsewhere by HS2 and their contractors. Future demand is therefore likely to be met from sites and facilities operating in Staffordshire and Oxfordshire.

1.23 The current production rate is above current sales but the gap between sales and the rate are considered to be small the equivalent of another site coming on stream. There is still demand for products from Warwickshire. There appears to be scope to increase production. There are two undetermined planning applications and consumption is rising. The current rate continues to allow for further growth especially with the current national demand for more housing and infrastructure to be built. **On this basis therefore this LAA believes that the current approved production rate of 0.508 million tonnes per annum set out in the adopted minerals local plan is still relevant and no changes are required.**

1.24 For crushed rock the 10-year average is considered to be the best starting point for setting a production rate but due to the need to amalgamate figures for Warwickshire with Staffordshire and Herefordshire the LAA 2017 did not set a production rate. As the situation remains the same **in this LAA no rate is proposed to be set for crushed rock.**



MAP 1 – shows the boundaries of the Mineral Planning Authorities in the West Midlands

2. Introduction

2.1 This is the first Local Aggregate Assessment since 2018, and therefore it covers sales and other data from years 2018 – 2023 including the period of the coronavirus pandemic.

2.2 Aggregates are the most commonly used construction minerals in the UK. They are normally 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 in Warwickshire are concrete, mortar, roadstone, and asphalt.

2.3 The National Planning Policy Framework[5] (NPPF) says at paragraph 222:

It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy, and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation.

2.4. The NPPF also says at paragraph 226 that the authority should plan for a steady and adequate supply of aggregates by:

- Preparing an annual Local Aggregate Assessment "based on a rolling average of 10 years' sales data and other relevant local information, and an assessment of all supply options (including marine dredged, secondary and recycled sources)".

- Participating in the operation of an Aggregate Working Party and taking the advice of that party into account when preparing their Local Aggregate Assessment.

- Taking account of any published National and Sub National Guidelines on future provision which should be used as a guideline when planning for the future demand for and supply of aggregates.

- Using landbanks of aggregate minerals reserves principally as an indicator of the security of aggregate minerals supply… and

- Maintaining 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.

[5] Ministry for Housing, Communities and Local Government (December 2024) National Planning Policy Framework (NPPF).

2.5 The LAA is an assessment of the demand for and supply of aggregates in the county and further information can be found in the online National Planning Practice guidance[6].

2.6 The Practice Guidance says that a LLA should contain the following three elements:

- 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 including the use of recycled aggregates.
- An assessment of the balance between demand and supply and the economic and environmental opportunities and constraints that might influence the situation. It should conclude if there is a shortage or a surplus of supply and, if the former, how this is being addressed.

2.7 Its purpose therefore is to help the County Council (in its role as Mineral Planning Authority) to provide an adequate and steady supply of local aggregates for the construction market. It will inform the development and monitoring of mineral planning policy in the county (Minerals Local Plan) and will be a material consideration in the determination of planning applications.

2.8 A draft of this Local Aggregate Assessment was sent to the West Midlands, East Midlands, Southeast and Southwest Aggregates Working Parties for consultation in September 2025 and the responses received together with the authority's comments are reported in Appendix 1.

3. Supply Factors

3.1 The supply of minerals and materials in Warwickshire for construction purposes continues to be based on the county's indigenous sources of sand and gravel, and crushed rock and recycled aggregates although some secondary materials are now being produced.

Primary Aggregates: Sand and Gravel

Geology

3.2 Sand gravel resources in the county can be classified into two major categories depending on their age and geology: superficial or "drift "deposits, and bedrock or "solid" deposits – there are no bedrock deposits (Kidderminster Formation) in Warwickshire.

[6] Ministry for Housing, Communities and Local Government Planning Practice Guidance (online|)

3.3 The Superficial deposits comprise post glacial river terrace and alluvial deposits mainly associated with the rivers Avon and Tame and are relatively gravel-rich sand and gravel. In some areas in the east of the county around Warwick and Coventry there are terrace like spreads of sand and gravel (Hillmorton Sand and Gravel and the Baginton Sand and Gravel). Extensive extraction has occurred where the terrace gravels are located close to urban areas for example in North Warwickshire and around the river Tame.

3.4 According to the British Geological Survey[7] some of the spreads of river gravels may not be of commercial value due to being too limited in extent, thickness, or quality.

3.5 Glacial sand and gravel deposits occur in several parts of the county in association with boulder clay but are very variable in extent, thickness (less that 10m in some parts but can extend to 20m in others) and lithology. They vary in composition and particle size distribution, generally contain more fines (silt and Clay), and frequently contain a larger amount of oversized materials. The Wolston Sand and Gravel, Shawell Sand and Gravel, Anker Sand and Gravel and the Dunsmore Gravel in the east of the county are sheet-like deposits of sand and gravel, commonly 3-4m thick.

3.6 Terrace and glacial deposits are washed sometimes crushed and separated into different sizes of sands and gravels to supply different markets with the majority of materials being sold as concreting sand and concrete aggregates (gravel, and gravel/sand mixes) but with some being sold as building or mortar or asphalt sands.

Current Warwickshire Infrastructure

3.7 At the present time in Warwickshire while there are four sites[8] with permitted reserves of sand and gravel (Wolston, Brinklow, Dunton and High Cross) but only two have been operational over the last few years – Brinklow and Wolston (please see Table 1 below). There is also one active processing site.

[7] British Geological Survey and Department of the Environment, Transport, and the Regions (1999) Mineral Resource Information for Development Plans. Warwickshire and West Midlands: Mineral Resources.
[8] Based on information supplied by mineral operators in response to West Midlands Aggregate Working Party's annual aggregate surveys.

Table 1: Sand and Gravel sites in Warwickshire with permitted reserves in 2024

Site	Operator	Active	Comments
Brinklow Quarry	Astons	Yes	Permission until 2047
Bubbenhall Quarry	Smith's Concrete	Yes, for processing only of imported materials	No reserves left. Continues to process material from Wolston Fields Quarry
Wolston Fields Quarry	Smith's Concrete	Yes	Permission until October 2027
High Cross	KSD	No but likely to recommence mineral extraction in 2025	Permission until 2046
Dunton Quarry	KSD	Yes, but only for aggregates recycling.	Small, permitted reserve maintained. Permission until 2031 for the active aggregate recycling facility.

3.8 Brinklow has a number of permitted mineral and waste operations and a permission until July 2047 but is subject to a highway restriction on the number of lorry movements. Wolston has been producing for a number of years but is expected to ceased extraction in a couple of years' time. While Wolston now has consent for a mobile processing plant its minerals continue to be exported to nearby Bubbenhall Quarry for processing and onward sales.

3.9 High Cross is due to re-commence operations shortly while Dunton continues to mainly operate as a recycling centre importing materials when ready mixed concrete is required locally.

3.10 Ling Hall ceased mineral extraction many years ago but feeds its onsite roadstone plant and ready mixed concrete facilities with imported materials.

3.11 There is no freestanding fixed or mobile processing plant operating in the county at the present time – all processing is carried out onsite.

3.12 Appendix 4 in the adopted minerals local plan[9] contains a list of minerals infrastructure in the county (as at 2019) comprising of:

- fixed processing plants
- mobile processing plants
- asphalt plants
- concrete batching plant
- bagging plants
- concrete products
- mortar plants.

3.13 The list is currently being updated but there is no rail or water served mineral sites or mineral infrastructure in the county. By far the biggest group of infrastructure is concrete batching plants most of which are located on industrial estates across the county.

Adopted Minerals Local Plan

3.14 The current Warwickshire Minerals Local Plan 2018 -2032 was adopted in July 2022. Policies MCS1 and MCS 2 on sand and gravel rely on the latest LAA to help ensure there is a steady and adequate supply of aggregate minerals in the county for construction purposes. MCS2 sets out the local plan requirement of 6.525 million tonnes to be provided over the plan period at an average production rate of 0.508 million tonnes per annum. The policy also commits the authority to maintaining at least a 7-year landbank of permitted reserves.

3.15 The adopted Minerals Local Plan has six site allocations for sand and gravel set out in policy S0. Details of the current position on the allocations is set out in Table 2 below.

[9] Appendix 4 – Minerals Infrastructure in Warwickshire – Aggregate Minerals (as at 2019) Warwickshire Minerals Local Plan 2018- 2032 – July 2022.

Table 2: Adopted Minerals Local Plan Allocations Update (July 2025)

Reference	Site	Tonnage (million tonnes) Allocation / Application	Landowner/Operator	Current Position
Site 1	Bourton on Dunsmore	1.15	Landowner	Planning Application to be submitted.
Site 2 (RBC/24CM025)	Lawford Heath	2.0/ 2.3	WCC/Cemex	Planning Application submitted.
Site 3 (RBC/17CM002)	Shawell Quarry	1.1 /0.9	Tarmac	Application Undetermined
Site 4 (WDC/22CM008)	Wasperton	1.8 /1.835	Smiths	Application Undetermined
Site 6	Coney Grey Farm, Ryton	0.4	WCC	Planning Application to be submitted
Site 9	Hams Lane, Lea Marston	1.06	Wilshee Aggregates	Application not validated.
Site 32 (RBC18/CM021)	Shawell Quarry	0.2	Tarmac	Planning Permission Granted

Mineral Safeguarding

3.16 Policy MCS 2 sees the delivery of the plan production rate for sand and gravel being secured through working existing permitted reserves, by granting planning permission for sites allocated by policy SO, (S1-4, 6 and 9) and through windfall or unplanned developments which would include extraction prior to, or as part of, non-mineral development.

3.17 Mineral safeguarding policies are set out in the adopted minerals local plan at MCS 5 and DM 10. While no major windfall or unplanned development has released supplies of sand and gravel into the marketplace as yet there is the potential for the demand for construction minerals/materials to be offset by partial and/or incidental extraction of minerals through consideration and determination of planning applications for non- mineral development.

3.18 The British Geological Survey defines typical criteria for an economically workable deposit as follows:

- The deposit should average more than 2m.

- The ratio of overburden to mineral should not exceed 1:1.

- The proportion of fines should not exceed 15 -25% silt or 10 – 15% clay and

- The deposit should be within 5 -10 m of the surface.

Current Planning Applications

3.19 Appendix 2 sets out the current (validated and undetermined) and past planning applications for significant minerals development in the county. The appendix shows that over a 17-year period the county has received less than one planning application per year with 11 of the 13 being for sand and gravel.

3.20 The submission of planning applications is a good indicator of how the minerals industry is responding to market demand. Due to the cost of the submission of mineral planning applications mineral operators are less likely to submit speculative applications. Mineral operators are also focussed on ensuring supplies are delivered from the most cost-effective and sustainable unit. Production of concrete remains very important and a key driver locally. Compared with other counties market demand for minerals from Warwickshire has remained low until very recently as the development and implementation of the site allocations start to come on stream.

3.21 With planning applications in the pipeline for determination it is likely that the production capacity in the county will increase as mineral operators respond to the need to supply minerals as demand for aggregates rises in and outside Warwickshire due to the push for more housing and other developments (See also Appendix 4).

Current Sales/Production and Landbank

3.22 Table 3 below shows the sand and gravel sales in Warwickshire over the six years covered by this LAA. Over that time period only two sites have been producing sand and gravel, and these units produce annually very modest amounts of material so in relative terms any changes shown in the sales figures between the years are not considered to be materially significant for reporting purposes. The average sales of sand and gravel over the 6 years covered by this LAA is 0.394 million tonnes.

3.23 The most recent data available is for 2023. Data for 2024 will be reported in the next LAA.

Table 3: Sales of Sand and Gravel 2018 – 2023 (million tonnes)

Data Source	2018	2019	2020	2021	2022	2023
WCC +	0.392	0.462	0.390	0.433	0.319	0.372 E
WMAWP ++	0.390	0.430	0.470	0.360	0.319	0.372
AMS 2023						0.373

Notes

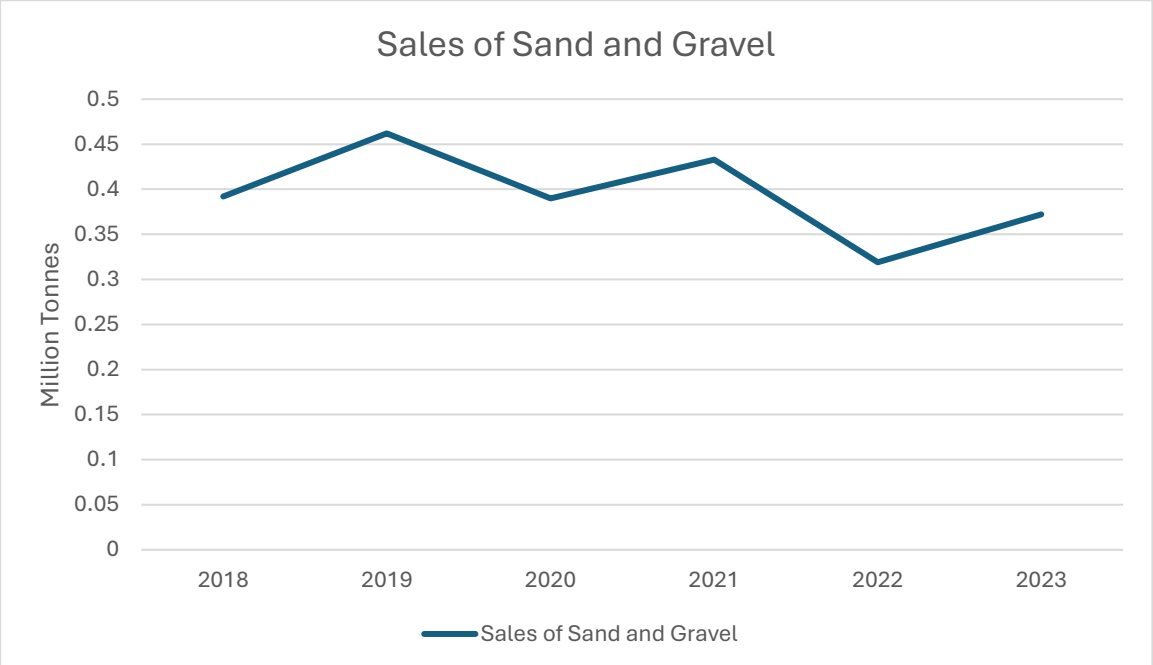
E= Estimated

+ = WCC data. Includes late submissions of data after figures collated by Aggregates Working Party

++ = West Midlands Aggregates Working Pary Annual report 2024 (2023 data) (March 2025) – Table 2

3.24 It is worth noting that the figures in Table 3 are different to those shown in the latest available West Midlands Aggregates Working Party annual report (2024)[10]. This is in part due to late submissions of company returns such as during COVID-19 and the need to estimate figures from previous returns. The WCC figures set out in Table 3 are shown below as a graph – Figure 1

Figure 1 – Sales of Sand and Gravel between 2018 and 2023.



[10] Table 2 West Midlands Aggregates Working Party Annual Report 2024 (2023 Data) (March 2025).

3.25 Table 4 shows the level of permitted reserves in Warwickshire. The permitted reserves held by mineral operators covers 4 sites and the granting of new permissions during the six-year period covered by the table.

Table 4: Permitted Reserves of Sand and Gravel 2018 -2023 (million tonnes)

Data Source	2018	2019	2020	2021	2022	2023
WCC +	6.196	6.674	6.458	5.233	4.008	3.630 E
WMAMP ++	6.200	6.070	5.600	5.500	4.008	3.630

Notes

E= Estimated

+ = WCC data. Includes late submissions of data after figures collated by Aggregates Working Party

++ = West Midlands Aggregates Working Pary Annual report 2024 (2023 data) (March 2025) – Table 3

3.26 It is worth noting that the figures in Table 4 are different to those shown in the latest available West Midlands Aggregates Working Party Annual Report (2024)[11]. This is in part due to late submissions of company returns such as during COVID-19, the need to estimate figures from previous returns and company reassessment of reserves. The production and geological and extraction reassessments in 2021 and 2022 reduced the level of sand and gravel reserves from 6,458,000 tonnes in 2020 to 4,008,000 tonnes in 2022 a reduction of 62%. As paragraphs 3.2 – 3.6 above suggest the resources in the county can be subject to variations including in quality.

3.27 Table 5 below shows the landbank of permitted reserves in the county over the life of this LAA. As at 2023 there was a landbank of 7.14 years of sand and gravel which would still comply with the NPPF and also policy MCS 2[12]. There has been a gradual reduction due in part to the reassessment of reserves by industry and in part to the lack of proposals coming forward for consent. During the period 2018 -2023 only 0.5 million tonnes of new reserves was added to the landbank, and there were no refusals. If the landbank falls below the 7-year requirement that may indicate a need for new permissions, but it might also suggest that other factors may be at play such as low demand for Warwickshire products as sales rises have been modest, operator preferences, competing

[11] Table 3 West Midlands Aggregates Working Party Annual Report 2024 (2023 Data) (March 2025).
[12] See also paragraph 8.13 in the adopted minerals local plan and the issue of variability in the quality of resources.

land use values, lack of quality resources to deliver such things as concreting sands. However, as there are two undetermined planning applications before the County Council to develop plan allocations there is an opportunity to increase sales and production and strengthen the landbank if the proposals are found acceptable and sites are brought on stream.

Table 5: Landbank of Permitted Reserves of Sand and Gravel 2018 -2023 (million tonnes)

2018	2019	2020	2021	2022	2023
6.196	6.674	6.458	5.233	4.008	3.630 E
12.14 yrs	13.13	12.71	10.3	7.9	7.14

Notes

1. *E= Estimated*
2. *The landbank is calculated by dividing the existing permitted reserves by the plan production rate set out in Policy MCS 2 in the adopted mineral local plan of 0.508 million tonnes per annum.*

Impact from Coronavirus pandemic

3.28 Restrictions imposed by the UK Government at the start of the COVID-19 pandemic in March 2020 resulted in an enforced shutdown of large sections of the UK economy. However, the sales data for that and subsequent years in Warwickshire shows that mineral operators were able to continue to trade at about the same levels despite the restrictions (see Tables 3 and 4).

Plan Production Rate

3.29 The starting point for setting a production rate for sand and gravel in this LAA is to estimate demand on the basis of a rolling average of 10 years sales data (the 10-year average) before considering other relevant local information.

Background

3.30 The current plan production rate of 0.508 million tonnes per annum was calculated and set in the Local Aggregate Assessment 2017[13] (using sales data for 2016) on the basis of a rolling average which included 10-year average sales figures showing some years of economic growth and economic downturn (2007 - 2009). In the opinion of the County Council, it was representative of a

[13] Warwickshire Local Aggregate Assessment 2017 – Warwickshire County Council October 2017

range of conditions to reflect all market conditions. Table 6 below shows the years covered (2007 – 2016) in the LAA 2017 to calculate its 10-year average.

Table 6: Calculating the Plan Production Rate - Warwickshire Sand and Gravel Sales 2007 -2016 (million tonnes)

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
No of Sites	5	6	5	3	3	3	3	2	2	2
Sales	1.19	0.85	0.75	0.33	0.42	0.40	0.209	0.280	0.322	0.332

Note: The total accumulation is 5.083 million tonnes which when divided by 10 = 0.508

3.31 The approach taken was subject to scrutiny during the preparation and adoption of the minerals local plan. The county council produced and submitted a number of documents including the 2017 LAA (SUB 13), a LAA Methodology Position Statement[14] (SUB 14) and a Sand and Gravel Topic Paper [15]which dealt with a number of matters including the continued use of the 10-year average for planning future provision in the context of declining sales.

3.32 Post submission further documents were submitted to the EIP in response to the questions posed by the Inspector in his Main Matters. For example, giving sales data for 2017 and 2018 attached to a Supplementary Statement to Main Matter 3[16]. After the EIP a Background paper[17] on the sand and gravel requirement calculation was submitted to address concerns about the calculation of the plan requirement, whether it was outdated and whether there was an overprovision for Coventry.

3.33 It is worth noting that at that time there were other issues having a bearing on the plan requirements in particular concerns raised by Representatives of the West Midlands Metropolitan Area Local Authorities (Walsall and Solihull) in a Duty to Cooperate Statement of Common Ground[18]. The main concern was that the county council "Should re-consider the provision made in the plan for

[14] Warwickshire Minerals Plan 2018 Submission (SUB 14) Local Aggregates Assessment Methodology Position Statement - November 2019.
[15] Warwickshire County Council Sand and Gravel Topic Paper (SUB 19) - September 2018
[16] Warwickshire Minerals Plan 2018 Examination Supplementary Statement: Main Matter 3 – Whether the Plan makes adequate provision for the steady and adequate supply of aggregate minerals – Appendix 1 (September 2020)
[17] Warwickshire Minerals Plan 2018 Examination Post Submission Document (PSD 21) Background Paper – Sand and gravel requirement calculation – May 2021
[18] Warwickshire Minerals Plan 2018 Post Submission Document (PSD13): Statement of Common Ground – Minerals Provision and Safeguarding: Warwickshire County Council, as Minerals Planning Authority (MPA) and Representatives of the West Midlands Metropolitan Area Local Authorities – October 2020.

sand and gravel extraction in the light of current proposals for housing growth and major infrastructure projects in the West Midlands Metropolitan Area."

3.34. The county council's approach was accepted by the Inspector and incorporated into policy MCS 2 as the agreed production rate.

Considerations and Assessment

3.35 The preparation of this LAA provides an opportunity to consider these issues in the light of the current information and evidence. The LAA 2017 observed that a 10-year average calculation had been carried out in accordance with national guidance. It included years of economic growth and downturn. Numerous sites had closed and there were only three active sand and gravel sites, so sales had declined significantly from 1.19 million in 2007 to 0.332 in 2016. New sites were not being advanced by the mineral industry (see Appendix 2). Against this background there had been a sharp rise in housing completions and there were large employment schemes in the pipeline. At that time, it was not clear what the demands for minerals would be for the construction of the new HS2 rail project from London to Birmingham (Phase1).

3.36. Paragraph 226 of the NPPF says that minerals planning authorities should plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregates Assessment based on a rolling average of 10 years' sales data and other relevant local information and making provision for the LAA elements in their minerals plan.

3.37 The adopted Warwickshire Minerals Local Plan which covers the time period up to 2032 and based on the production rate of 0.508 million tonnes set out in the 2017 LAA makes provision for 6.525 million tonnes of sand and gravel to be delivered through six allocations (policy MCS 2).

3.38 The NPPF still therefore relies on the 10-year average approach. News sites are being advanced, and Tables 3 -5 tell us that sales have stopped declining and have now levelled out. Over the six years covered by this LAA average sales have been 0.394 million tonnes of sand and gravel which is being supplied by two producing sites (Brinklow and Wolston). The Minerals Products Association in their 2024 edition[19] of regional overview of construction and mineral products markets have produced a graph of construction output for the West Midlands. It shows that output is rising again after the coronavirus pandemic.

3.39 Table 7 below shows the 10 year and 3-year past average sales since the LAA 2017 document was endorsed and approved. This shows that when comparing the relevant yearly sales figure with the 10-year average the 10-year average is

[19] MPA Regional overview of construction and mineral products markets in Great Britain – 2024 Edition.

below the sales figures except for 2022. In the case of the 3-year average this is above the sales figure only in 2020 and 2022.

Table 7: Sales and 10- and 3-year averages 2017 - 2023

	2017	2018	2019	2020	2021	2022	2023
Sales	0.349	0.392	0.462	0.390	0.433	0.319	0.372
10-year	0.422	0.376	0.347	0.353	0.355	0.346	0.362
3-year	0.344	0.357	0.401	0.414	0.428	0.380	0.374

Source: West Midland Aggregates Working Party annual reports

Summary of Primary Aggregates Supply: Sand and Gravel

3.40 According to the British Geological Survey[20] some of the spreads of river gravels may not be of commercial value due to being too limited in extent, thickness, or quality. There are four sites with permitted reserves but only two sites are producing sand and gravel. There are no sites served by rail or water in the county. There is a plan requirement to produce 6.525 million tonnes up to 2032 and the adopted minerals local plan allocates 6 sites for sand and gravel working with a potential tonnage of 7.51 million tonnes. There is the potential for the demand for construction minerals/materials to be offset by partial and/or incidental extraction of minerals through consideration and determination of planning applications for non- mineral development.

3.41 Planning applications for two of the allocations in the adopted plan have been submitted with a combined tonnage 4.1 million tonnes and a third is expected shortly. The average sales of sand and gravel over the 6 years covered by this LAA is 0.394 million tonnes. Permitted reserves in the county have dropped from 6.200 million tonnes in 2018 to 3.630 million tonnes due to major reassessments in 2020 and 2022. The landbank is however still above the level required of 7 years at 7.14. The current production rate is 0.508 million tonnes per annum set out in the adopted mineral local plan. Table 7 shows the past 10 year, and 3-year averages are below this rate.

Primary Aggregates Supply: Crushed Rock

[20] British Geological Survey and Department of the Environment, Transport, and the Regions (1999) Mineral Resource Information for Development Plans. Warwickshire and West Midlands: Mineral Resources.

Geology

3.42 There is a regionally important resource of hard rock which is restricted to the outcrop known as the Nuneaton Inlier, containing Precambrian, Cambrian, and Ordovician rocks. They form a narrow outcrop of hard rock which extends from Bedworth to Nuneaton and Atherstone[21] and these provide one of the few sources of high strength hard rock, known as Diorite, for crushed rock aggregates in central England. These rocks contain elements which have a high polished stone value (PSV) content and are used mainly for roadstone and rail ballast.

3.43 The accessible outcrop has already been extensively worked in the past so the opportunity to release additional resources is now extremely limited.

Current Warwickshire Infrastructure

3.44 The LAA 2017 (2016 data) reported on data compiled by the West Midlands Aggregates Working Party and in Warwickshire there were four crushed rock sites Mancetter, Griff IV, Griff V and Hartshill but only Mancetter and Hartshill were active with the other two sites having unworked permitted reserves.

3.45 In this LAA there are only two active crushed rock quarries in Warwickshire near Atherstone at Hartshill (formerly known as Jees and Boon) and at Mancetter. Hartshill has a permission until 2042 and Mancetter applied for planning permission in 2024 to extend the lifetime of the quarry for a 5-year period until 1st January 2030.

3.46 Mancetter has a restriction on the annual output of minerals from the quarry of 400,000 tonnes. There are also restrictions on the imports of primary aggregates (for the production of asphalt) per annum of 40,000 tonnes and 30,000 tonnes of road planings. There are two asphalt plants on site one using on site materials and the other imported material.

3.47 Griff IV ceased extraction and is now being restored. There is planning permission until 2032 to recycle inert materials and also to continue to import roadstone and primary aggregates to feed an existing asphalt plant. There are no permitted reserves at Griff V.

3.48 At Ling Hall Quarry there is an existing roadstone coating plant for which planning permission has been sought to extend its life to May 2029. The plant relies on imported materials to produce the coated roadstone.

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

Adopted Minerals Local Plan

3.49 Policies MCS 1 and MSC 3 in the adopted minerals plan deal with current and future crushed rock supply in the county. The adopted minerals local plan[22] did not allocate any specific sites for the production of crushed rock due to the limited nature of the outcrop, the known physical, community, environmental and transport constraints, the difficulty in assessing the resource and the extensive landbank.

Mineral safeguarding

3.50 The adopted minerals plan explains that proposals for non- mineral development that have the potential to needlessly sterilise crushed rock mineral resources will be considered against policies MCS 5 and DM 10 and the Crushed Rock Mineral Safeguarding Map. However, due to the reasons set out in paragraph 3.49 above and the working methods likely to be employed the opportunities for prior extraction of this type of minerals are expected to be very limited. There have been no examples yet of any prior extraction of crushed rock in the county. Windfall or unplanned supplies are likely therefore to have very limited impact on future supplies.

Current planning applications

3.51 Appendix 2 sets out details of the current planning application at Mancetter.

Current sales /production and landbanks

3.52 Due to issues of commercial confidentiality [23] Warwickshire's data is combined with Staffordshire and Herefordshire for crushed rock sales and permitted reserves something that has been in place for many years. The last time Warwickshire reserves information was available from the West Midlands Aggregates Working Party[24] was in 2011 which showed the county having reserves of 21 million tonnes. In terms of sales, you have to go back to 2004 for Warwickshire only information and that was 0.66 million tonnes.

3.53 The LAA 2017 reported that the landbank as of December 2015 stood at 30.97 years and permitted reserves stood at 27.26 million tonnes which included a two million tonne extension at Mancetter Quarry. According to this information

[22] Paragraph 8.24 in the adopted mineral local plan 2018 -2032

[23] There is an issue with reporting crushed rock sales and permitted reserves figures due to a requirement for confidentiality where there are less than three operational sites in one county unless express permission is given by the operators affected. This is due to long standing arrangements between the industry and government to protect commercial interests of mineral operators. This means that when sales for crushed rock are reported in Warwickshire the figures are usually added to those of another county which in this case is Staffordshire and Herefordshire. Amalgamation was also required for the West Midlands Aggregates Working Party Annual Monitoring Report.

[24] West Midlands Aggregates Working Party – Annual Monitoring Report 2015, incorporating data from January 2015 – December 2015.

the landbank is well above the 10-year level required by the Plan (policy MCS 30 and the NPPF).

3.54 Table 8 below shows the combined sales of crushed rock from 2016 – 2023 and also the position on permitted reserves. In terms of sales the figures show a gradual growth until 2019. Sales rose more quickly between 2020 and 2022 before reducing. Taking the figures at the beginning and the end of this LAA there has been a 27% increase in sales of crushed rock across the three combined authorities. By contrast the level of permitted reserves has declined by 58% from 202 million tonnes in 2016 to 118 million tonnes in 2023. This is the lowest level of reserves for over 10 years.

Table 8: Crushed Rock Combined Authorities[25] Sales and Permitted Reserves 2016 – 2023 (million tonnes)

	2016	2017	2018	2019	2020	2021	2022	2023
Permitted Reserves	202,140	104,210	127,910	123,900	122, 700	117,094	122,059	118,111
Sales	1.23	1.27	1.38	1.28	1.32	1.60	1.78	1.57

Source: West Midlands Aggregates Working Party annual reports.

3.55 The reassessment of reserves is commonplace as new operators take stock; new markets open up and views change on the quantity of viable reserves available in the future.

Impact from coronavirus pandemic

3.56 According to comments made by the operator at Mancetter in its recent planning application “The Covid 19 pandemic resulted in a significant reduction in extraction levels for a prolonged period with the site now building back up to pre-pandemic levels.”

Plan production rate.

3.57 The 10-year average is considered to be the best starting point for setting a production rate but due to the need to amalgamate the figures for Warwickshire with Staffordshire and Herefordshire the LAA 2017 did not provide any figures for the 3- or 10-year average, nor did it set a production rate. As the situation as regards reporting remains the same no rate is proposed to be set for crushed rock in this LAA.

[25] Herefordshire, Staffordshire, and Warwickshire

Summary of Primary Aggregates Supply: Crushed Rock

3.58 There is a regionally important resource of hard rock between Atherstone and Nuneaton and the accessible outcrop is now limited and that is home to two operating sites but due to confidentiality and reporting the sales and permitted reserves for these sites are combined with figures from Herefordshire and Staffordshire. There are no allocations for crushed rock in the adopted mineral local plan. There have been no examples yet of any prior extraction of crushed rock in the county. Windfall or unplanned supplies are likely therefore to have very limited impact on future supplies. There are currently no applications submitted to increase production or permitted reserves of crushed rock in the county. The landbank is well above the 10-year level required by the Plan (policy MCS 3 and the NPPF).

3.59 Taking the figures at the beginning and the end of this LAA there has been a 27% increase in sales of crushed rock across the three combined authorities. By contrast the level of permitted reserves has declined by 58% from 202 million tonnes in 2016 to 118 million tonnes in 2023. This is the lowest level of reserves for over 10 years. No production rate has previously been set for crushed rock due to the need to amalgamate the figures with other mineral planning authorities for confidentiality and reporting reasons.

Primary Aggregates Supply: Marine Aggregates

3.60 The NPPF states that MPA's should take into account all supply options including marine aggregates. There is no evidence that Warwickshire receives any marine aggregates. The Collation of the Aggregate Minerals Surveys 2009, 2014, 2019 and 2023 reveal that there were no marine aggregates reported at these times. Being landlocked and not accessible by river from the coast, it is unsurprising that Warwickshire has no reliance on marine aggregates.

Substitute, Recycled and Secondary Aggregates and Mineral wastes.

3.61 National planning policy states that Mineral Planning Authorities should "so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, whilst aiming to source minerals supplies indigenously." [26]

Substitute Materials

3.62 There is no definition of "substitute materials" in the National Planning Policy Framework (NPPF). In construction, substitute materials are alternative materials used in place of traditional ones, often to enhance sustainability,

[26] Ministry of Housing, Communities & Local Government – National Planning Policy Framework – December 2024 paragraph 223 b)

reduce costs and improve performance. For example, by using materials such as recycled aggregates instead of concrete.

3.63 There is no data available to indicate the level of contribution made by substitute materials in Warwickshire as it will be dependent to some degree on the development proposals under consideration and the local planning policies in place. It will also depend on the level of demand and level of operator interest. As companies explore new technologies to increase the use of waste and residues as alternative raw materials and demonstrate circularity and decarbonisation there will be a need to monitor the extent to which primary aggregates are being displaced by other materials.

Recycled Aggregates

3.64 The NPPF defines recycled aggregates as "aggregates resulting from the processing of inorganic materials previously used in construction, e.g. construction and demolition wastes."[27] It also includes asphalt planings from road resurfacing, recycled glass, recycled tyres, and railway track ballast. In the past much of the material was recycled by mobile plant on construction sites in Warwickshire but recently there has been an increase in the number of standalone [28]sites associated with existing or exhausted quarries.

3.65 There have also been a number of Recycling and Pre -treatment facilities which involve the erection, operation, and use of temporary mobile plant/structures to receive, process, and treat imported inert waste materials and/or on-site mineral wastes to produce aggregate materials and wastes for deposition on-site. With the increase in "recycling" generally more materials are being managed at general skip sites and inert wastes are being bulked up at household waste recycling centres. So, the picture is changing.

3.66 Details of the current standalone sites in the county are set out in Table 9 below. Currently there are no planning applications to develop new sites or to increase capacity at existing sites.

[27] Ministry of Housing, Communities & Local Government – National Planning Policy Framework – December 2024 - Glossary

[28] Standalone sites - The erection, operation, and use of temporary/permanent, fixed and/or mobile plant/building/structures to receive, process, and treat waste materials to produce aggregate materials. Source: Warwickshire Minerals Plan 2018 Examination – Post Submission Document (PSD 24): Topic Paper – Recycled Aggregates – September 2021.

Table 9: Recycled and Secondary Aggregate Sites in Warwickshire 2025

No.	Site Name	Operator	Grid Reference	Status
1	Dunton Quarry, Curdworth	KSD	E= 418909 N= 293122	Active Time limited
2.	Coleshill Quarry, Coleshill	Coleshill Recycled Aggregates	E= 419989 N= 290920	Active Time limited
3.	MAC Griff Clara, Nuneaton	MAC Contracting Ltd	E= 434938 N= 289218	Active
4.	Griff IV quarry, Nuneaton	MAC Nuneaton Quarry Ltd	E= 435520 N= 288897	Active Time limited
5.	Brinklow Quarry, Highwood Farm, Brinklow	Mrs J Aston	E= 440463 N= 279310	Active
6.	Canalside Yard, Napton	Xact Skip Hire Ltd	E= 445242 N= 261409	Active
7.	Edgehill Quarry	Boddington Demolition Ltd	E= 437122 N= 246861	Active
8.	The Fisheries	B. O'Reilly & Sons	E= 453869 N= 278385	Active
9.	Hartshill Quarry, Hartshill	Crown Aggregates	E= 433179 N= 295408	Inactive
10.	Ling Hall	Veolia	E= 443767 N= 274179	Active

3.67 A standard approach for estimating C&D waste arisings or projecting growth in C&D waste has not been adopted nationally. However, a guidance document has been published by the National Waste Technical Advisory Board Chairs and Aggregate Working Party Chairs on Recycled Aggregates Data – April 2022[29]. The guidance sets out three ways of calculating recycled aggregate production by using:

- Waste Data Interrogator (WDI)

[29] Recycled Aggregates Data – Guidance on Assessing Levels of Recycled Aggregates – April 2022.

- Survey of Operators

- National Surveys

3.68 In past LAAs the method used to establish projections in the Warwickshire Waste Core Strategy[30] was the Scott Wilson Landfill Capacity Update Report (June 2009) – Scenario 1 data. The report identified that by 2031 Warwickshire will produce up to 20,002,653 tonnes of C&D waste and for both 2030 and 2031 a lower level of arisings of 801,158 tonnes. The Recycling Aggregates Topic Paper reported that Warwickshire had a capacity of 830,250 tonnes per annum and that it also managed more than it produced. Warwickshire now uses a mixture of approaches including data from operator surveys and the WDI. Table 10 below gives information about inert C&D wastes derived from the Environment Agency Waste Interrogator for the years 2018 -2022.

Table 10: Inert Construction & Demolition Waste - Warwickshire

Year	Source	Amount produced	Amount handled/managed
2018	EA WI 2018	1,243,445	2,145, 792
2019	EA WI 2019	1,187,079	1,459,392
2020	EA WI 2020	2,299,881	2,592,554
2021	EA WI 2021	1,127,473	1,807,999
2022[31]	EA WI 2022	6,217,856	6,824,355

Source: Environment Agency Waste Interrogator tables.

3.69 The Minerals Local Plan and Waste Core Strategy give policy encouragement to increasing the use of secondary and recycled materials. However, the lack of data makes this difficult to monitor at the local level. In recent years it has been difficult to obtain construction and demolition (C&D) waste recycling figures

[30] Warwickshire Waste Core Strategy – Adopted Local Plan 2013- 2028 – July 2013.

[31] These figures include a very large amount of materials from within the HS2 project so less weight should be attached where comparing with previous years.

from all the operators of the standalone sites because there is no legal requirement for them to submit annual returns.

3.70 Nationally, recycled and secondary sources of aggregates have supplied on average 29% of total aggregates in Great Britain over the last 10 years, reaching 30% and an estimated 73.5 million tonnes of materials in 2022.[32] It is noted that when comparing the use of recycled materials in place of primary aggregates some operators argue that primary materials are superior due to the following factors:

- durability
- degradation
- level of contaminants and the need for residual mortar
- standards and specifications
- the availability of large quantities of materials at any one time
- applicability on heavily used roads
- known characteristics and predicted behaviour of primary materials and
- primary materials being consistent and reliable.

3.71 In the absence of evidence that the proportion of recycled aggregate material used in Warwickshire is likely to vary from the national proportion, these statements support this Local Aggregates Assessment not relying on any significant alterations to the proportion of supply.

Secondary Aggregates and Mineral Wastes

3.72 The NPPF defines secondary aggregates as “aggregates from industrial wastes such as glass (cullet), incinerator bottom ash, coal derived fly ash, railway ballast, fine ceramic waste (pitcher), and scrap tyres: and industrial and minerals by-products, notably waste from China clay, coal and slate extraction and spent foundry sand. These can also include hydraulically bound materials.

3.73 The LAA 2017 identified that cement kiln dust produced as part of the cement production process at Rugby Cement Works was being sent to a recycling facility where it is used to make agricultural fertiliser. Incinerator bottom ash (IBA) was used as a secondary aggregate and mixed in with recycled aggregates at Dunton Quarry in North Warwickshire. Recycled glass is also used at Brinklow Quarry to produce a secondary aggregate when mixed with other materials.

[32] Mineral Products Association - Construction Aggregates Supply in Great Britain: Primary, Recycled and Secondary Aggregates in 2022

3.74 Since then planning permission (RBC/13CM003) has been granted and implemented to install plant and equipment to recycle IBA to produce secondary aggregates. The planning application documentation said the capacity was 75,000 tonnes and would take IBA from Four Ashes EFW plant in Staffordshire. In 2023 the site was only stockpiling and processing as it was being commissioned, and the only sales were circa 500t in December.

3.75 On this basis, this LAA assumes that the contribution of substitute, secondary and recycled materials is already accounted for prior to considering the sales figures for primary aggregates.

Summary of Recycled and Secondary Supply

3.76 In the absence of evidence that the proportion of recycled aggregate material used in Warwickshire is likely to vary from the national proportion, this Local Aggregates Assessment does not rely on any significant alterations to the proportion of supply. On this basis, this LAA assumes that the contribution of substitute, secondary and recycled materials is already accounted for prior to considering the sales figures for primary aggregates.

Primary Aggregates - Imports and Exports

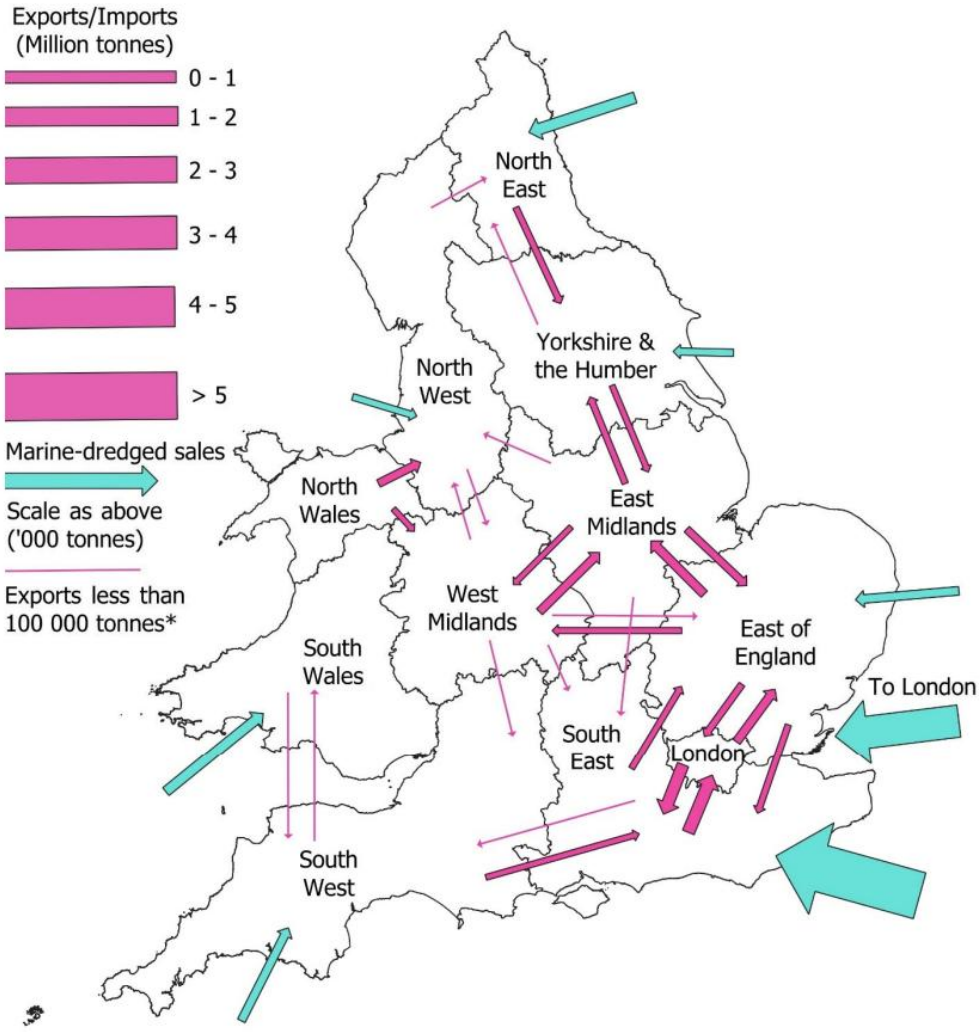
Imports

3.77 Sales figures alone only show the amount of aggregate produced within the county and cannot show whether this is broadly comparable to the scale of demand within Warwickshire. Understanding the scale of net imports and exports in the county is therefore important. Net imports would indicate that demand in the county exceeds the amount sold from sites in the county, whereas net exports would indicate that Warwickshire produces more than is needed to meet its own needs and is therefore contributing to regional or national supply through the Managed Aggregate Supply System.

3.78 The main source of information about the flows of imports and exports of primary aggregates is the *Aggregate mineral survey for England and Wales*. The survey is undertaken every 4 or 5 years by Government and one aspect that it considers is the movement of materials between regions and countries. It sets out information relating to the inter-regional flow of aggregates. The pattern of movements of sand and gravel is illustrated below in Figure 2 and crushed rock in Figure 3.

Figure 2 Sand and gravel inter-regional flows 2023.

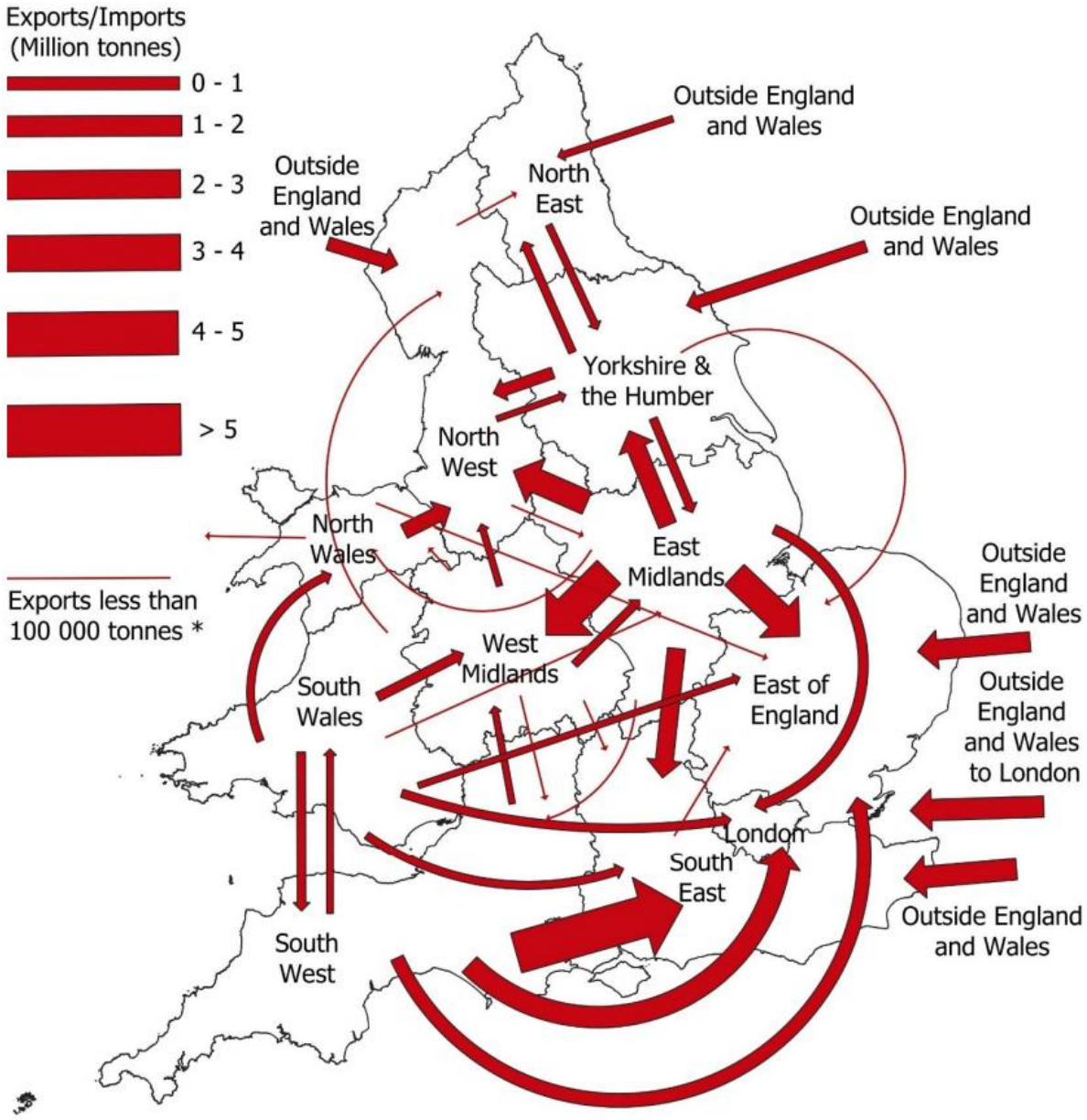
Map 10 Sand and gravel inter-regional flows of primary aggregates, 2023, England and Wales



*For clarity exports/imports less than 25 000 tonnes are not shown.

Figure 3 Crushed Rock inter-regional flows 2023.

Map 12 Crushed rock inter-regional flows of primary aggregates, 2023, England and Wales



*For clarity exports/imports less than 25 000 tonnes are not shown.

3.79 The latest available aggregates minerals survey is 2023 which has data on imports of primary aggregates by sub region. By comparing the results from previous surveys 2009, 2014, 2019, and 2023 it is possible to get an overall picture on the degree to which Warwickshire relies on imports of sand and gravel and crushed rock to meet its needs (see Table 11).

Table 11: Imports to Warwickshire

National Collation (AM Surveys	Land won Tonnes of S & G	Marine S & G	Tonnes of Crushed Rock	Total
2009	359,000	0	449,000	808,000
2014	282,000	0	659,000	941,000
2019	308,000	0	835,000	1,143,000
2023	321,000	0	1,307,000	1,628,000
% Change 2019 -2023	+ 4	No change	+ 56	+ 42

Source: Collation of the results of the 2009 aggregate minerals survey for England and Wales: Communities and Local Government (October 2010) table 10; Collation of the results of the 2014 aggregate minerals survey for England and Wales: Communities and Local Government (March 2016) table 10; Collation of the results of the 2019 aggregate minerals survey for England and Wales: Communities and Local Government (2021) table 10. Collation of the Results of the 2023 Aggregate Minerals Survey for Great Britain table 10.

3.80 The level of imports into Warwickshire of primary aggregates between 2009 and 2019 increased by 41% of which the largest is crushed rock. For sand and gravel there was a 21% decrease in imports between 2009 and 2014 but an increase of 8% between 2014 and 2019. Between 2009 and 2014 there was an increase of 46% in crushed rock and 26% increase between 2014 and 2019. Table 11 shows the percentage change between 2019 and 2023. Warwickshire continues to be a net importer of crushed rock.

Sand and Gravel

3.81 In 2019 according to the *Collation of the results of the 2019 Aggregate Minerals Survey for England and Wales* 308,000 tonnes of sand and gravel was

imported into Warwickshire. Staffordshire supplied between 40-50% Leicestershire and Northamptonshire supplied 10-20 % and Cambridgeshire, Derbyshire, Lincolnshire, and Nottinghamshire all supplied between 1 and 10%. In 2023 imports had risen to 321,000 tonnes which was just a 4% increase.

3.82 Table 6 above could provide some explanation for the increase in imports of sand and gravel in that after 2009 a number of sand and gravel sites closed down and were not replaced. Production was reliant on two or three sites producing about 150,000 - 200,000 tonnes per annum and that was not sufficient to meet demand. If the number and rate of planning applications submitted (see Appendix 2) was an indicator of the lack of operator interest in the county, then that could also indicate how the market has responded. Equally if there were issues with the quality of the deposits and concerns about competing land values and the cost of submitting planning applications, then that might explain why indigenous resources in the county were not called upon to meet demand and therefore reliance was placed on imports.

Crushed Rock

3.83 The LAA 2017 reported that in relation to the 448,753 tonnes of crushed rock imported into (consumed in) Warwickshire in 2009 Leicestershire supplied between 35 - 40% Warwickshire supplied 33%, Oxfordshire 10 -15% and Derbyshire 5 -10%. By 2014 the tonnage had increased to 659,000 tonnes with the majority of the rock coming from Leicestershire (60 -70 %) and smaller amounts from Gloucestershire, Oxfordshire, and Shropshire (1-10%). The 2019 annual collation reported that crushed rock imports had increased again to 835,000 tonnes with the majority of supplies coming from Leicestershire (50 – 60 %), with smaller amounts from Warwickshire (20 -30%), Gloucestershire, Oxfordshire, Telford and Wrekin and Powys (1-10%).

3.84 The data for 2023 shows crushed rock imports increasing again this time by 56% in the four-year period between the last two surveys.

Exports – Sand and Gravel and Crushed Rock

3.85 Tables 12 and 13 below show the principal local destinations of the sand and gravel, and crushed rock produced in Warwickshire and exported according to the annual national collations of 2009, 2014, 2019 and 2023.

Table 12: Exports of Sand and Gravel

National Collations	Tonnes sold within the following destination and percentage. *Warwickshire*	Tonnes sold within the following destination and percentage. *West Midlands*	Tonnes sold within the following destination and percentage. *Elsewhere*	Total
2009	134 18%	509 68%	69 9%	712
2014	193 69%	87 31%	0 0	280
2019[33]	0	0	0	0
2023	34 9%	332 89%	7 2%	373

Source: Collation of the results of the 2009 aggregate minerals survey for England and Wales: Communities and Local Government (October 2010) table 9f; Collation of the results of the 2014 aggregate minerals survey for England and Wales: Communities and Local Government (March 2016) table 9f; Collation of the results of the 2019 aggregate minerals survey for England and Wales: Communities and Local Government (2021) table 9f. Collation of the Results of the 2023 Aggregate Minerals Survey for Great Britain table 9f.

Table 13: Exports of Crushed Rock

National Collations	Tonnes sold within the following destination and percentage. *Warwickshire*	Tonnes sold within the following destination and percentage. *West Midlands*	Tonnes sold within the following destination and percentage. *Elsewhere*	Total
2009	218 71%	52 17%		270
2014	205 72%	47 16%	34 12%	285
2019	238 87%	30 11%	7 2%	275

[33] Data not available due to COVID and lack of operator returns.

2023	68%	20%	12%	x

Source: Collation of the results of the 2009 aggregate minerals survey for England and Wales: Communities and Local Government (October 2010) table 9f; Collation of the results of the 2014 aggregate minerals survey for England and Wales: Communities and Local Government (March 2016) table 9f; Collation of the results of the 2019 aggregate minerals survey for England and Wales: Communities and Local Government (2021) table 9f. Collation of the Results of the 2023 Aggregate Minerals Survey for Great Britain table 9f.

3.86 According to Table 12 and the data for 2009 and 2014 there was a significant increase in tonnes sold in Warwickshire from 18% to 69% with consequential reductions to the West Midlands and Elsewhere. With the 2023 data the picture has changed significantly with the bulk of the exports going to the West Midlands conurbation.

3.87 Table 14 provides some information on the general destination of sand and gravel from Warwickshire for the years 2018 to 2023. This shows a significant change in supply strategy for sand and gravel from Warwickshire quarries with sales within the county declining from 94 % in 2018 to 9% in 2023. There may be a number of reasons for this change in supply:

- Both of the current producing quarries lie very close to the county boundary with the West Midlands County Area and in particular Coventry City where there are and have been a number of development projects.
- Brinklow has historically supplied Coventry markets and with the only operational mortar plant in the county is best placed to respond to demand for sand from housing projects.
- Market forces – demand is for concrete which Warwickshire quarries are not supplying in large amounts.
- developer preferences for example major house builders having specific contractual supply arrangements for products such as mortar
- mineral operator sales strategies including supplying materials from the most cost-effective unit

Table 14: Exports - General Destination of Sand and Gravel from Warwickshire 2018 - 2023

	2018	2019	2020	2021	2022	2023
Sales (million tonnes)	0.392	0.462 †	0.390 †	0.433†	0.319	0.372
Use within Warwickshire	94%	71%	Not available††	53%	39%	9%
Use outside of Warwickshire	6%	29%	Not available ††	47%	61%	91%

Notes

Source: West Midlands Aggregate Working Party annual returns and 2023 Annual Mineral Survey Collation

† Adjusted figures following receipt of late returns. These may differ from those in the WMAWP Annual Reports.

†† Mineral working Subject to COVID restrictions.

3.88 For crushed rock Table 13 shows a fairly consistent picture with the majority of production being sold in the county with reductions in supplies to the West Midlands and Elsewhere. This suggests that even with crushed rock imports continuing to increase the producing units in Warwickshire have regular customers and stable markets.

Summary of Imports and Exports

3.89 In 2019 Warwickshire imported 308,000 tonnes of sand and gravel but sold 462,000 tonnes the majority of which was used in the county (71%). In 2023 321,000 tonnes was imported and 372,000 tonnes exported making it a net exporter. Warwickshire is a net importer of crushed rock. The majority of the crushed rock produced in the county is sold in the county.

4.Demand Factors

Total Consumption

4.1 Data on the amount of primary aggregates consumed within Warwickshire each year is not available but total consumption for the county can be estimated based on available data for Warwickshire in the *Aggregate minerals survey for*

England and Wales for 2009, 2014 and 2019. This can provide useful contextual information.

4.2 Table 15 below uses data on imports to the county combined with sales within the county to give consumption figures. We know that the sand and gravel figure for 2019 only includes imports and not sales due to the information not being available in Warwickshire. However, taking the data on face value we see a continuing reduction in sand and gravel being consumed between 2009 and 2023 but an increase in crushed rock.

Table 15: Sales and Imports - Consumption of aggregate minerals in Warwickshire 2009 – 2023 (million tonnes)

	2009	**2014**	**2019**	**2023**
Sand and Gravel	0.493	0.475	0.308	0.355
Crushed Rock	0.667	0.865	1.073	1.532
TOTAL	1.160	1.339	1.481	1.887
Sand and gravel	42.5%	35%	22%	18%
Crushed rock	57.5%	65%	78%	82%

Source: Collation of the results of the 2009 aggregate minerals survey for England and Wales: Communities and Local Government (October 2010) tables 9f, 10, 11; Collation of the results of the 2014 aggregate minerals survey for England and Wales: Communities and Local Government (March 2016) tables 9f, 10, 11; Collation of the results of the 2019 aggregate minerals survey for England and Wales: Communities and Local Government (2021) tables 9f, 10, 11. Collation of the Results of the 2023 Aggregate Minerals Survey for Great Britain tables 9f, 10 and 11.

4.3 Between 2009 and 2014 there was a 15% increase in total consumption but only 3% between 2014 and 2019. Between 2009 and 2019 there was a 18% increase in total consumption and 27% increase between 2019 and 2023. More crushed rock is being consumed than sand and gravel.

4.4 Table 16 provides a comparison for 2023 between Warwickshire, the West Midlands Metropolitan Area, and the West Midlands region. This shows that for sand and gravel Warwickshire's consumption is just 4.55% and 20% for crushed rock in terms of the region as a whole.

Table 16: Consumption of Primary Aggregates by Sub Region in 2023

Sub Region	Sand and Gravel (million tonnes)	Crushed Rock (million tonnes)	Total
Warwickshire	0.355	1,532	1,887
Remainder of the West Midlands (Met Areas)	1,117	2,059	3,176
Total for West Midlands sub national area	7,800	7,680	15,480

Source: Refer to Table 11 of the AM Survey 2023

Summary of Aggregates Consumption

4.5 Based on the Aggregate Minerals Survey data sand gravel consumption declined up to 2019 before increasing. For crushed rock consumption continues to grow.

3-year average sales

4.6 The online Planning Practice Guidance says that "Mineral Planning Authorities should also look at average sales over the last three years in particular to identify the general trend of demand as part of the consideration of whether it might be appropriate to increase supply." [34]

4.7 The 3-year average for 2021 – 2023 is 0.374 million tonnes generally matching sales of 0.372. Compared with the 3-year average from LAA 2017 of 0.311 the average has risen 63,000 tonnes or about 20% (see Table 17 below).

4.8 For crushed rock the figures are combined for Herefordshire, Staffordshire, and Warwickshire in the West Midlands Aggregate Working Party annual reports. The 2024 report shows a 3-year average of 2,130, 000 tonnes up from 1,320,000 tonnes in 2021 Report. [35]

[34] Paragraph 065 Reference ID 27-065-20140306

[35] West Midlands Aggregates Working Party Annual Reports 2021 published in July 2022 and 2024 published in March 2025.

Table 17: Sales and 3-year average 2017 - 2023

	2017	2018	2019	2020	2021	2022	2023
Sales	0.349	0.392	0.462	0.390	0.433	0.319	0.372
3-year	0.344	0.357	0.401	0.414	0.428	0.380	0.374

Source: West Midlands Aggregates Working Party annual reports.

Summary of 3 Year average sales

4.9 The 3-year average matches the sales figure for 2023. Since the 2017 LAA the average has increased by only 63,000 tonnes. The 3-year average for crushed rock is a combined figure for Warwickshire, Staffordshire, and Herefordshire and that is rising.

Sub regional apportionment.

4.10 A further indicator to be taken into account is any published National and Sub National Guidelines on future provision.[36] *National and regional guidelines for aggregates provision in England*[37] were produced to cover the period 2001-2016 and updated for the period 2005-2020 and to set out the level of provision which should be made by each Region. An annual "sub-regional apportionment" was derived from the 2001-2016 Guidelines, and for Warwickshire this was 1.043 million tonnes of sand and gravel, and 0.880 million tonnes of crushed rock. No sub-regional apportionment based on the 2005-2020 Guidelines was agreed, and no further National and Sub National Guidelines have been published by government.

4.11 The figure of 1.043 million tonnes is 280% higher than the 2023 sand and gravel sales, 288% higher than the 10-year average and 278% higher than the 3-year average. The figure of 0.880 million tonnes is higher than the combined average sales for 2010 -2012 for Herefordshire, Warwickshire, Staffordshire, and Worcestershire of 0.770 million tonnes.

4.12 In the last 16 years only in 2007 did sales of sand and gravel exceed the sub-regional apportionment but then only by 76.000 tonnes. For the most part the apportionment has had no material relevance to the sales of sand and gravel in the county and did not play a part in the setting of the plan production rate in the adopted mineral local plan. It also played no part in dealing with the future demand for crushed rock in the county.

[36] Ministry for Housing, Communities and Local Government (December 2024) *National Planning Policy Framework*, paragraph 226(d).

[37] Department for Communities and Local Government https://www.gov.uk/government/publications/national-and-regional-guidelines-for-aggregates-provision-in-england-2005-to-2020

Summary of Sub Regional Apportionment

4.13 The sub regional apportionment is not a material factor in determining future demand of primary aggregates in the county. There are no up-to-date National and Sub-National Guidelines.

Anticipated Levels of Development

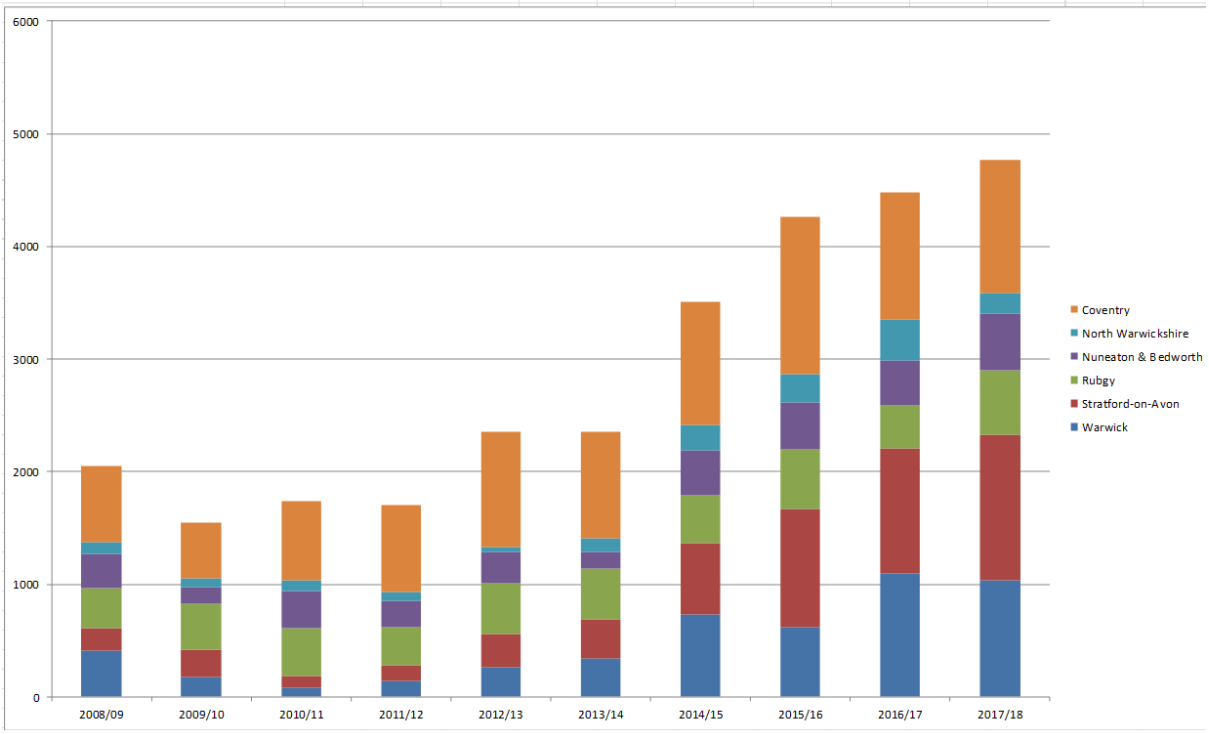
4.14 By considering the levels of planned development in the county it may be possible to provide an indication of whether demand for aggregates is likely to significantly increase or decrease.

4.15 Employment land is often characterised by large scale buildings requiring substantial concrete pours for bases, as well as areas of external hardstanding and a road layout, suitable for HGVs. All of which requiring significant construction aggregates. Both housing and employment development will require supporting infrastructure such as roads, and, for larger housing allocations, education facilities, local centres, and other community infrastructure, which will have further construction aggregate requirements. Transport infrastructure schemes are significant users of sand and gravel materials for various uses.

Housing development

4.16 A steady and adequate supply of aggregates is important in enabling the planned housing development to be delivered in the county. To understand whether future demand for aggregates for housing is likely to be comparable to, or significantly lower or higher than, historic levels of demand, trends in housing completions have been considered. Set out below is Figure 10 from the draft LAA 2018 which shows historic net housing completions up to 2017/18.

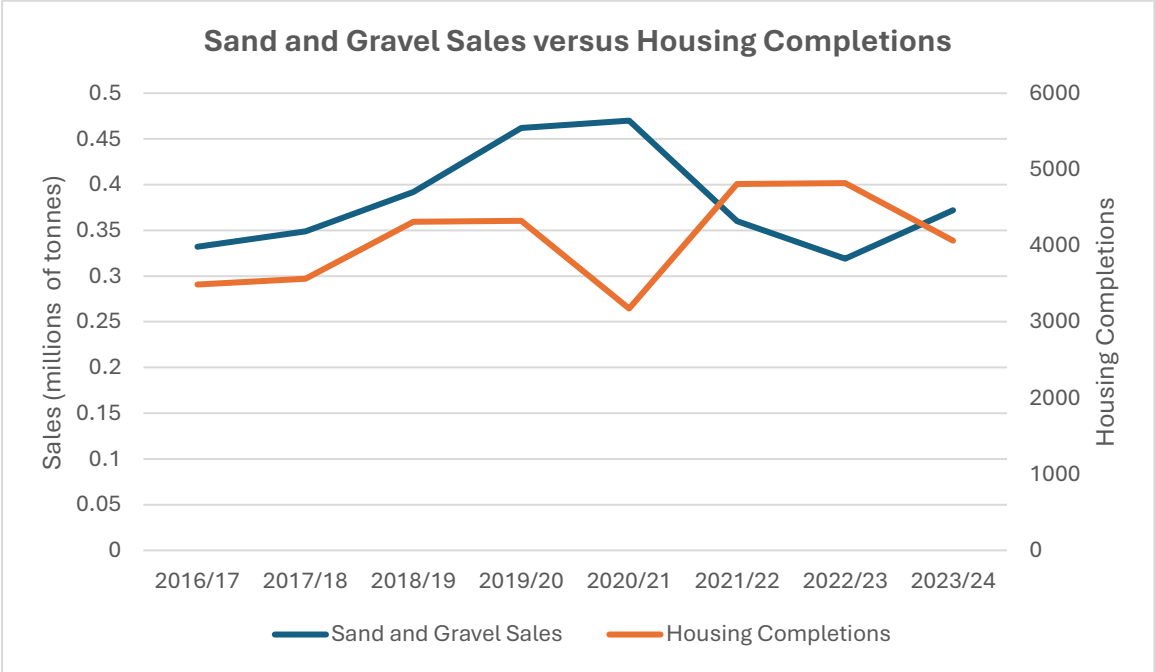
Figure 10: Warwickshire and Coventry net housing completions 2008/09 – 2017/18



Source: Warwickshire County Council: Draft LAA 2018

4.17 The figure shows that construction industry increased residential development significantly and this is reflected in a large number of new residential permissions granted in the county in 2016/17 and 2017/2018.

4.18 Figure 11 below shows sand and gravel sales and housing completions in Warwickshire since LAA 2017.



Sources: The latest (2024) Borough and District Council Annual Monitoring Reports, or Five-Year Housing Supply statements and Housing Trajectories.

4.19 The graph shows that the level of housing completions has varied annually over the last 8 years, with a low of 3,174 in 2020/21 and a high of 4,820 in 2022/23. The average over this eight-year period was 4,069 completions per year. During the eight-year period there was some 32,555 completions with the highest levels in Stratford at 10,010 and Warwick 8,083, respectively.

4.20 Housing completions and sand and gravel sales have diverged markedly in the last four years. This suggests that there is no correlation between housing completions in Warwickshire and sand and gravel sales from Warwickshire.

4.21 Whilst some sand and gravel extracted in Warwickshire is used to build houses in Warwickshire not all of Warwickshire's houses will use Warwickshire's sand and gravel. The movement of minerals across the county's administrative boundary is a normal part of a functioning market. The distance of sand and gravel reserves from population centres and other locations of planned housing growth will influence the cost of those minerals to the end user. With Coventry in the north of the county having no sand and gravel quarries and falling within typical road-transport distance of the county boundary developments in the city will source sand and gravel from Warwickshire.

4.22 Despite the lack of a direct correlation between housing completions and the scale of sand and gravel sales locally, it is nonetheless the case that housebuilding is a significant consumer of aggregate materials. This LAA therefore considers the anticipated level of housing growth in Warwickshire in the coming years (based on adopted and emerging local plans, and likely future housing targets). Comparing these indicative growth levels to past trends can help to identify if a significant change to the scale of demand from this sector is likely.

4.23 Having said that the Mineral Products Association have said that "Estimating future demand for aggregates at sub national (regional or local levels) is fraught with difficulties." [38]

4.24 Table 18 provides details of the level of development anticipated in current adopted Borough and District Local Plans in the county. The level of delivery required for housing is far less than the highest level of completions and also the eight-year average mentioned in paragraph 4.19 above. Table 19 provides details of the new development strategies set out in emerging local plans in the county.

[38] Footnote 1. page 5. Mineral Products Association - Aggregates demand and supply in Great Britain – Scenarios for 2035 (2022).

Table 18: Housing and Employment Land Provision in Adopted Local Plans

Authority	*Plan Period*	*Plan Policy*	*Housing Provision (homes/dwellings)*	*Employment Land Provision*
SDC	2011-2031	CS 16 CS 22	14,600	22.35 ha
NBBC	2011-2031	DS 4 DS 6	14,060	107.8 ha
WDC	2011- 2029	DS 6 DS 8	16,776	66 ha
NWBC	2011 -2033	LP 5 LP 5	9,598	100 ha
RBC	2011 -2031	DS 1 DS 1	12,400	208 ha
Total			**67,434**	**504.15**
Average			**3,371 (over 20 years)**	**25.2 (over 20 years)**

Table 19: Housing and Employment Land Provision in Emerging Local Plans

Authority	*Plan Period*	*Plan Policy*	*Housing Provision (homes/dwellings)*	*Employment Land Provision*
SDC (jointly with WDC) Reg 19.	2025 -2050	DPD 1 DPD 1	41,975 – 54,700	75-125 ha
NBBC Reg 22 Under examination	2021 -2039	DS 3 DS 3	9810 (at 545 per annum) Main Mods 421 per annum	87.85 ha
WDC (jointly with SDC) Reg 19.				
NWBC	No new plan at present.			
RBC (Review of Local Plan)	2024 - 2045	S 2 S 3	12,978 (at 618 per annum)	288.4 ha
Total				

4.25 The NPPF states that "Local planning authorities should identify and update annually a supply of specific deliverable sites sufficient to provide a minimum of five years' worth of housing against their housing requirement set out in adopted strategic policies, or against their local housing need where the

strategic policies are more than five years old."[39] Local housing need should be calculated using the standard method set out in national planning practice guidance.[40] The standard method was revised in December 2024. In future the revised method will need to be used to inform housing requirements in Warwickshire and as Table 20 shows will lead to a substantial increase in housing need.

Table 20 - Results of new standard method of calculating housing need for Warwickshire local planning authorities

Area	Annual Local Housing Need under the previous standard	Annual Local Housing Need under the new standard	Percentage Change
Stratford	553	1,126	+103%
Warwick	653	1,062	+ 62%
Rugby	525	618	+17%
North Warwickshire	163	364	+ 123%
Nuneaton & Bedworth	421	737	+ 75%
Totals	2,315	3,907	+ 68%

Source: Indicative local housing need (December 2024 – new standard method)

4.26 In addition, increased housing requirements in areas adjoining Warwickshire could also lead to sand and gravel being exported from Warwickshire to meet their needs. The results in Table 21 below suggest that there could be less exports to the West Midlands Conurbation in the future and more even distribution elsewhere.

Table 21 - Results of applying new standard method of calculating housing need to local planning authorities adjacent to Warwickshire

Area Unitary/County / District	Annual Local Housing Need under the previous standard method	Annual Local Housing Need under the new standard method	Percentage Change
Leicestershire Northwest Leicestershire	357	595	+ 66%
Blaby	329	542	+ 64%
Hinckley & Bosworth	432	649	+ 50%
Market Harborough	510	723	+ 41%
Northamptonshire	2,124	2,515	+ 18%

[39] Ministry for Housing, Communities and Local Government (December 2024) *National Planning Policy Framework*, paragraph 78.
[40] Footnote 39 NPPF Paragraph 78.

West Northamptonshire			
Oxfordshire Cherwell	706	1,118	+ 58%
West Oxfordshire	549	905	+ 64%
Gloucestershire Cotswold	504	1,036	+ 105%
Worcestershire Wychavon		971	
Bromsgrove	386	713	+ 84%
Redditch	143	486	+ 239%
Solihull	866	1,323	+ 52%
Coventry	3,081	1,323	-54%
Birmingham	7,174	4,448	-37%
Staffordshire Tamworth	123	445	+ 261%
Lichfield	289	745	+ 157%

Source: Indicative local housing need (December 2024 – new standard method)

4.27 From Tables 20 and 21 the clear direction of travel is for a substantial increase in housing development. Whilst not all of the sand and gravel needed for this growth will come from Warwickshire, a failure to secure adequate permitted reserves could compromise the ability to deliver the required housing numbers to the required timescales. With only 2 crushed rock quarries in the county and one of these having high polished stone and asphalt plants it is anticipated that the majority of the crushed rock needed to enable housing growth will continue to be imported from outside the county for the near future.

4.28 Notwithstanding the housing need figures presented in Table 21 above, detailed data for other local planning authority areas in the West Midlands has not been collated in this LAA and it is not possible to identify the precise movements of all aggregates into and out of the county. As such, there is less certainty on the relationship between demand for housing and sales of sand and gravel at a regional level. Indicators of regional demand include the Mineral Products Association's (MPA) forecast of 2% growth in construction output in the West Midlands for the period 2024-2028, with the highest level of growth expected to come from private housing.[41]

[41] Mineral Products Association, Regional_overview_of_construction_and_mineral_products_markets_in_Great Britain, 2024 edition: https://www.mineralproducts.org/MPA/media/root/Publications/2024/MPA_Regional_overview_of_construction_and_mineral_products_markets_in_GB_2024.pdf

4.29 The MPA reports[42] that, nationally, *"*A challenging macroeconomic backdrop and high interest rates dragged on the construction sector in 2023 and the first half of 2024. Businesses in the construction supply chain have been dogged by cost inflation, economic uncertainty, and planning obstacles, all of which have hindered confidence and project delivery."

Summary of Housing Development

4.30 There is no correlation between housing completions in Warwickshire and sand and gravel sales from Warwickshire. It is nonetheless the case that housebuilding is a significant consumer of aggregate materials. The clear direction of travel is for a substantial increase in housing development so a failure to secure adequate permitted reserves could compromise the ability to deliver the required housing numbers to the required timescales.

Employment Land

4.31 In Table 18 a total of 504ha of land is currently allocated for employment use in local plans in Warwickshire. According to Table 19 there is a further 451 – 501ha being planned for in emerging plans. There is a lack of data available in Warwickshire regarding the relationship between employment development and aggregate supply. It is also not possible to identify trends in employment development or to consider the relationship between the scale of development and historic aggregates sales in Warwickshire.

Summary of Employment Land

4.32 There is a lack of data available in Warwickshire regarding the relationship between employment development and aggregate supply.

Infrastructure Development

4.33 The 2017 LAA reported that the largest infrastructure project planned in the county was the High Speed 2 (HS2) Rail project from London to Birmingham which runs through the county. Since then, the authority has prepared for the Minerals Local Plan 2018 EIP a topic paper on planned growth in the county and the mineral spatial option[43]. This topic paper includes a diagram (see Figure 5 below) which illustrates the location of anticipated growth at the county scale in 2020. It included the major housing and employment allocations in the county and its surroundings, as well as some other major sites where further development has or is likely to come forward during the Minerals Plan period.

[42] Mineral Products Association, Regional_overview_of_construction_and_mineral_products_markets_in_Great Britain, 2024 edition: https://www.mineralproducts.org/MPA/media/root/Publications/2024/MPA_Regional_overview_of_construction_and_mineral_products_markets_in_GB_2024.pdf

[43] Warwickshire Minerals Local Plan 2018 – Examination Post Submission Document (PSD 20) Topic paper – Planned growth and the Mineral Plan Spatial Option.

4.34 For example, ongoing construction at Birch Coppice Business Park and an extension of Hams Hall Distribution Park that received planning consent from the Borough Council in 2017, both in North Warwickshire.

4.35 Although the allocations shown may have changed now it does show the general patterns of growth promoted through the various local plans. Growth patterns around main settlements and adjoining areas can be clearly seen, including those around Leamington Spa/Warwick/Whitnash, Rugby and Nuneaton/Bedworth/Coventry, as well as in and around the adjoining areas of Tamworth, Birmingham, Solihull, and Redditch.

4.36 It also shows growth close around strategic transport corridors, for example:

- along the A5 between Tamworth and Nuneaton, as well as around Rugby.

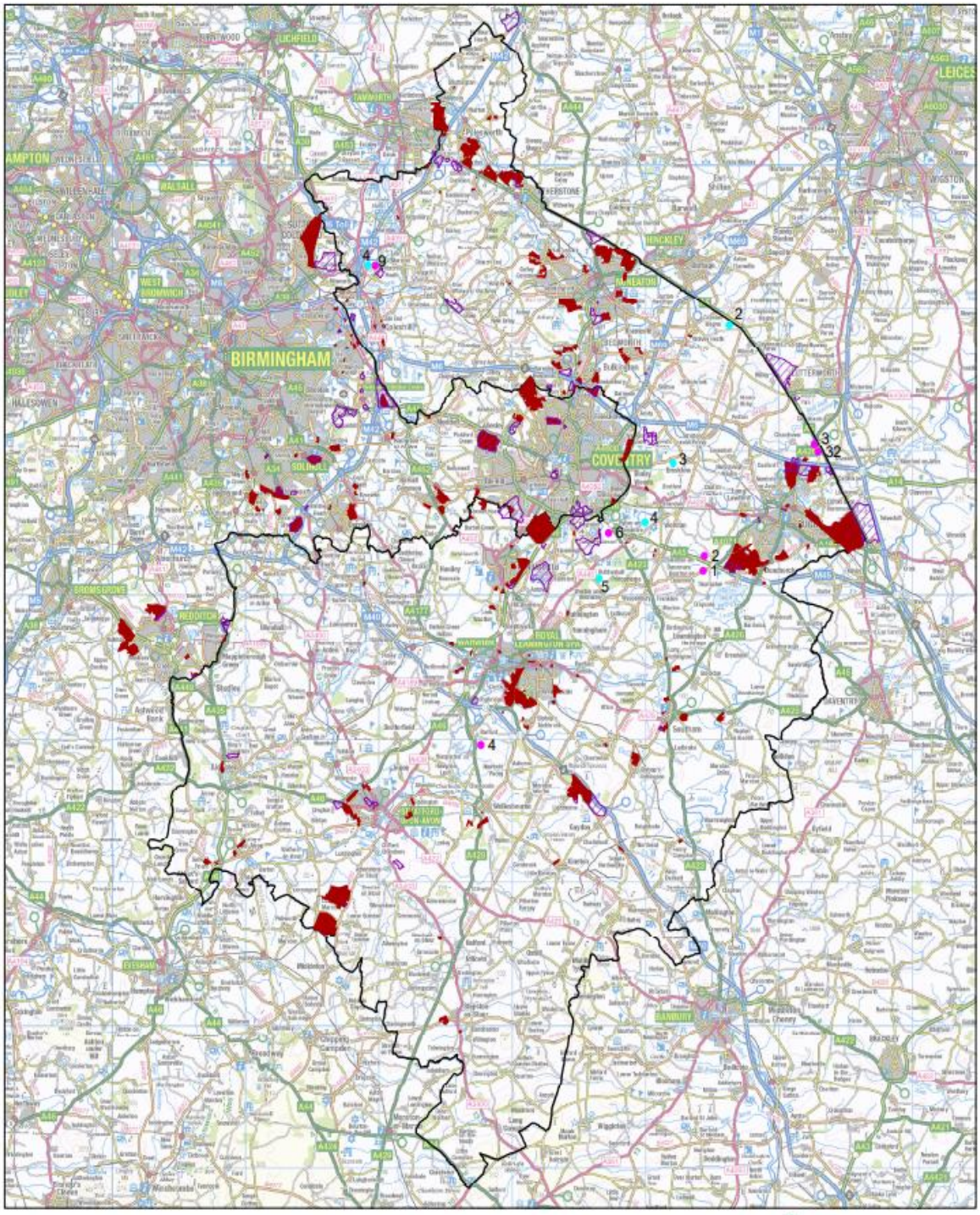
- along the A46 that runs roughly northeast/southwest in the county, close to Coventry, Kenilworth, Warwick/Leamington Spa/Whitnash and Stratford, and

- around the M40 at Gaydon Lighthorne Heath and southwest of Warwick.

4.37 Each District and Borough in the county is required to produce Infrastructure Delivery Plans. An infrastructure delivery plan is a live document that details the strategic infrastructure required in order to deliver the growth planned for with the local plan. While there is no overall county plan it is clear from the IDPs that have been produced that a large amount of new infrastructure will be required now and, in the future, to deliver the growth plans already committed and in progress. The planned infrastructure whether it is new roads, or schools will use sand and gravel and crushed rock. At the national level, the Government have recently produced a UK Infrastructure Strategy[44]

[44] HM Treasury and NISTA UK Infrastructure A 10 Year Strategy (June 2025)

Figure 5



Legend

- Employment Growth
- Housing Growth
- Warwickshire County Boundary
- Existing Sand & Gravel Site
- Minerals Plan 2018 Sand & Gravel allocation

Existing Sand & Gravel Sites:
1 - Dunton Quarry: Minimal reserves, aggregate recycling focus
2 - High Cross
3 - Brinklow
4 - Wolston Fields: Consented extraction until 2024
5 - Bubbenhall: Extraction ceased, processing plant only

2018 Sand & Gravel Site allocations:
1 - Bourton-on-Dunsmore
2 - Lawford Heath
3 - Shawell Quarry Extension (West)
32 - Shawell Quarry Extension (East)
4 - Wasperton
6 - Coney Grey Farm, Ryton-on-Dunsmore
9 - Hams Lane, Lea Marston

N

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Communities
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4.38 This is the first time that the UK has set out a long-term Strategy that brings together economic infrastructure (transport, energy, water and wastewater, waste, digital and flood risk management) with housing and social infrastructure (hospitals, schools and colleges, and prisons and courts). The strategy does not indicate how much material will be required to deliver the planned/proposed infrastructure, but it does list for the West Midlands Region a number of projects to be delivered over the next 10 years and they are:

- Transport for City Regions allocation

• HS2

• Midlands Rail Hub

• 57 schools being delivered in the School Rebuilding Programme in this region.

Summary of Infrastructure

4.39 There are a large number of infrastructure projects in the pipeline both within Warwickshire and in adjoining areas and they are very unlikely to be supplied with construction aggregates from the county even if further capacity is permitted in the coming months and sites brought on stream.

Nationally Significant Infrastructure Projects (NSIP)

4.40 NSIPs are defined under the Planning Act 2008 and for them to proceed to construction they must obtain a Development Consent Order (DCO) from the Government. There are a number of NSIPs which are currently within, adjacent or may have an impact on Warwickshire and they are listed below.

NSIPS

Project Name	Project Type	Location	Current Position
A46 Coventry Junctions (Walsgrave) Project	Alteration to Highway	Walsgrave Part in Coventry and Part WCC	DCO Examination
East Midlands Gateway Phase 2 (EMG2)	Rail freight Interchange and Warehousing	Junction 24 of the M1 and northeast of East Midlands Airport	Pre submission of DCO application and material change order to the EMG1 DCO
Grand Union Canal Transfer	Transfer of Water resources	Birmingham – Bedfordshire	Pre- application stage
Botley West Solar Farm	Energy	Woodstock, Oxfordshire	DCO Examination
Southeast Strategic Reservoir Option	Reservoir	Abingdon, Oxfordshire	Pre -application stage.

4.41 None of the projects have yet provided information on the amount of materials (construction materials, waste, primary and secondary aggregates) that will be

required to complete construction due to the final detailed designs having not been signed off through the DCO Examination and Consenting process.

HS2 Phase 1

4.42 The largest infrastructure project currently under construction in Warwickshire is HS2 which is a new high-speed railway that will connect London with the West Midlands. It will bring benefits for inter-urban rail travellers through increased capacity and improved connectivity between London and the West Midlands. It will release capacity on the existing rail network and so provide opportunities to improve existing commuter, regional passenger, and freight services.

4.43 Phase One of HS2 will provide a dedicated high speed rail service between London, Birmingham, and the West Midlands. It will extend for approximately 230km (143 miles). Just north of Lichfield (Handsacre), high speed trains will join the West Coast Main Line for journeys to and from Manchester, the Northwest and Scotland. In this region it will also include the construction of an intermediary station at Birmingham Airport/International) in Solihull. Phase One is expected to be completed in 2033.

4.44 Construction and operation of the railway is covered by an Act of Parliament the High-Speed Rail (London - West Midlands) Act 2017.

4.45 In Warwickshire County Phase 1 includes two stretches of railway line one 13kms from the Staffordshire border at Drayton Bassett to Delta Junction (Coleshill) and beyond to the northern Solihull border and the other a longer stretch 30kms from the southern Solihull border to Wormleighton. (see Figure 6 below). The project will incorporate lengths of line in tunnels, on viaducts and bridges and at grade.

4.46 It is understood that material requirements for the project in Warwickshire will be sourced by HS2 contractors and subcontractors. Balfour Beatty VINCI (BBV) is the main civil works contractor for section N1 (Long Itchington Wood Green Tunnel – Delta Junction/Birmingham) and N2 (Delta Junction – Handsacre, Lichfield). EKJV are the main works contractor for the remaining section in Warwickshire from Long Itchington Wood Green Tunnel to Wormleighton which forms part of Sector C3 (Brackley – South portal of Long Itchington tunnel).

4.47 Materials to be used would be secured from the excavation of mineral resources, prior extraction, reuse of excavation materials through on site placement in earthworks and landscaping and/or borrow pits.

4.48 The 2017 LAA reported that *"There has been no indication that any minerals sites in Warwickshire will be required for the construction process. WCC has*

been informed that all the sand and gravel for the construction project will be sources from quarries predominantly in the southeast."[45]

4.49 By the time of the Examination in Public (EIP) (October 2020) into the Warwickshire Minerals Local Plan 2018 things had moved on. So, WCC provided an update on HS2 aggregate requirements[46]. The paper had been submitted to outline evidence that had become known since Phase One construction had commenced in planning applications to Staffordshire and Oxfordshire which provided some indication how aggregate requirements may be met for Phase One construction in the county, in addition to cut and fill balance. Despite several requests no specific information for Warwickshire was forthcoming from HS2 or its contractors about future material requirements.

4.50 The paper highlighted in Staffordshire that information submitted with planning applications for a new quarry and extensions to other quarries indicated that concrete would be supplied to concrete plants in HS2 yards at Coleshill and Stoneleigh Park both of which lie in Warwickshire.

4.51 Since then, the draft Staffordshire Local Aggregates Assessment 2024[47] has reported that:

"*Quarries in Staffordshire are supplying aggregates for the construction of HS2 works and a new quarry has been developed near Lichfield dedicated to supplying concrete for phase 1 works."*

4.52 The 2020 paper also covered aggregates from Oxfordshire, and this indicated that the emphasis would be on the use of a borrow pit and changes to facilities to allow for more deliveries. Recent inspection of Oxfordshire's planning webpage shows that plans for borrow pits there have not progressed.

4.53 According to a news article issued[48] by HS2 on 7th November 2024 over half of the concrete needed for HS2's West Midlands structures have been poured. The article reports that 1.9 million cubic metres is due to be used in total so with 1 million already been poured a further 0.9million will be required in the coming months and years.

4.54 It goes on to say that BBV has three concrete suppliers – Aggregates Industries, Tarmac and Cemex. While Warwickshire hosts several concrete batching plants operated by these major suppliers the facilities are supplied with raw materials from outside the county.

[45] Paragraph 4.4, Page 28, Warwickshire Local Aggregate Assessment 2017 (October 2017).
[46] Post Submission Document (PSD 10) Topic paper – HS2 aggregate requirements – September 2020
[47] Staffordshire County Council - Draft Local Aggregate Assessment 2024
[48] https://mediacentre.hs2.org.uk/news/over-half-of-the-concrete-needed-for-hs2s-west-midlands-structures-has-been-poured

4.55 Supplies of concrete for the West Midlands according to the article come from eleven plants, five of which are on HS2 sites. Tarmac is said to be “supplying the southern end of the route in Warwickshire” possibly from plants in Oxfordshire.

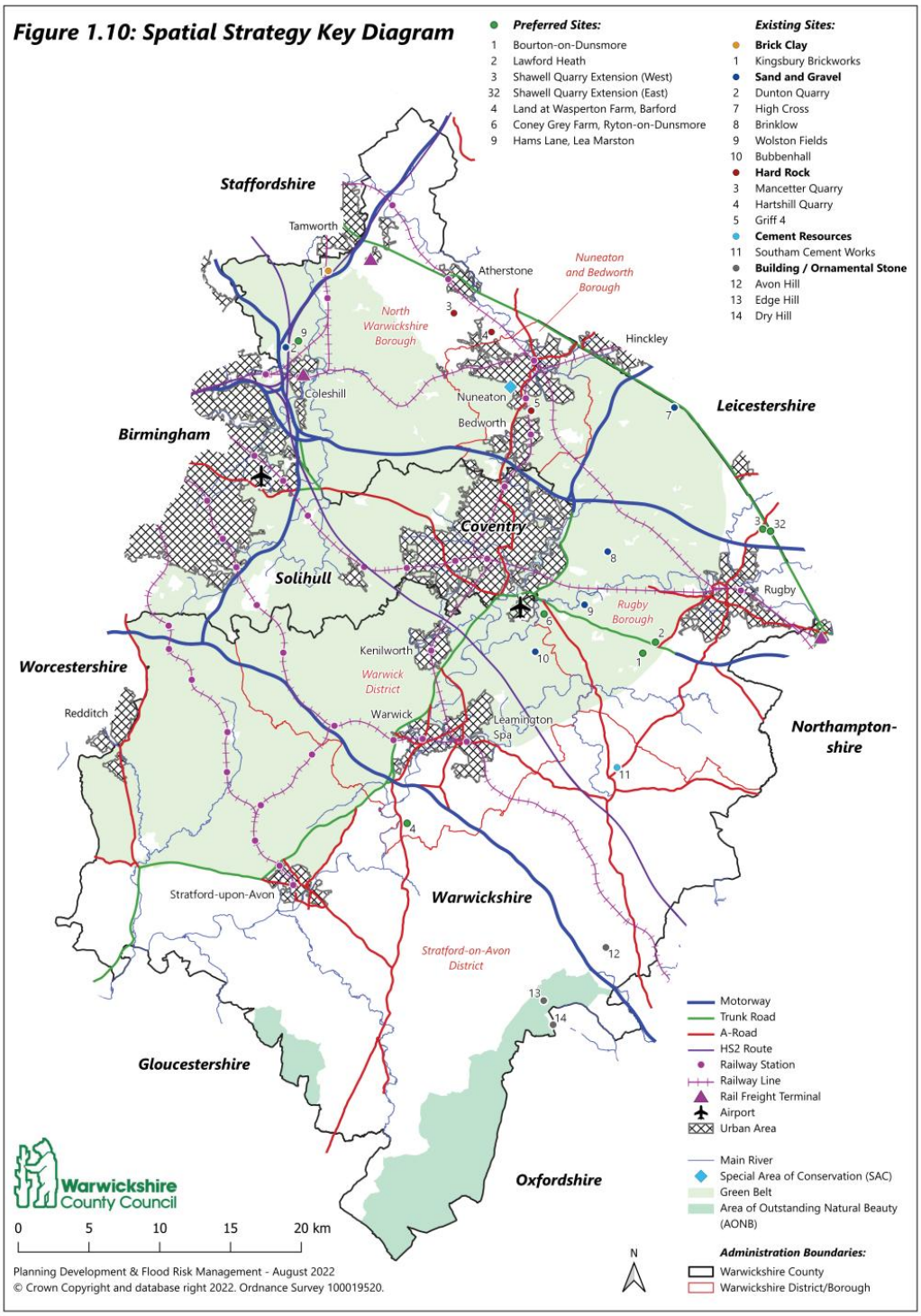
4.56 In Warwickshire there have been proposals for borrow pits one for Green Lane Embankment Area and the other for Marsh Lane Embankment Area both at Delta Junction in North Warwickshire. These were submitted in 2022 under the Schedule 17 consenting process set up under the 2017 Act. The proposals were not supported by WCC because they fell outside the scope of the Act and should have come forward as planning applications. HS2 appealed and both appeals were allowed on 24th May 2023. Trial pits excavated at these borrow pit locations revealed no viable aggregates resources only material suitable for embankments and landscaping.

4.57 Evidence that the existing sand and gravel and crushed rock sites in Warwickshire have been or are likely in the future to supply HS2 with construction materials has not been submitted. The Lawford Heath planning application shown in Appendix 2 states that the material from that site would be used to meet growth in Warwickshire and the West Midlands Conurbation.

Summary of HS2 Phase 1

4.58 The future demand for aggregates in relation to HS2 construction in Warwickshire is expected to be limited. This is primarily due to the nature of materials required – particularly concrete – and the lack of sites in the county supplying materials but also to supplies being transported in from elsewhere by HS2 and their contractors. Future demand is therefore likely to be met from sites and facilities operating in Staffordshire and Oxfordshire.

Figure 6 Showing the line of HS2 through Warwickshire



5. Balance of Supply and Demand

5.1 The online Planning Practice Guidance[49] notes require that a Local Aggregate Assessment contains "an assessment of the balance between demand and supply and the economic and environmental opportunities and constraints that might influence the situation. It should conclude if there is a shortage or a surplus of supply and, if the former how this is being addressed."

5.2 Table 6 above could provide some explanation for the increase in imports of sand and gravel into Warwickshire. After 2009 a number of sand and gravel sites closed down and were not replaced. Production was reliant on two or three sites producing about 150,000 - 200,000 tonnes per annum and that was not sufficient to meet demand. If there were issues with the quality of the deposits and concerns about competing land values, the cost of submitting planning applications, a lack of operator interest, then that might explain why indigenous resources in the county were not called upon.

5.3 Appendix 2 shows the low level of planning applications that have been submitted over the past decade for the extraction of construction aggregates in the county. Even though there was demand a large part of that demand was not being met from quarries in the county due to factors other than mineral planning. There is an adopted plan, and that plan provides for future supplies but only now are applications coming forward to realise those supplies. Details of the current and future production in the county according to data in planning applications is set out in Appendix 4.

5.4 The West Midlands Aggregates Working Party has agreed that a number of indicators should be considered in determining whether the production rate for minerals should be adjusted to avoid future shortfalls. Set out below are the agreed indictors and the assessments for Warwickshire based on the information in this LAA.

Demand Indicators

Demand Indicator	Assessment of Indicator	Does indicator provide robust evidence that deviation is necessary from the level of planned provision?
Gross housing completions	There is no correlation between housing completions in Warwickshire and sand and	No

[49] Paragraph 062 Reference ID 27-062-20140306

Refer to Figure 4 and Tables 18 - 21	gravel sales from Warwickshire. It is nonetheless the case that housebuilding is a significant consumer of aggregate materials. The clear direction of travel is for a substantial increase in housing development so a failure to secure adequate permitted reserves could compromise the ability to deliver the required housing numbers to the required timescales. The current production rate is already well above current sales and allows for further growth.	
Employment land completions compared with requirements	A lack of data on employment land development prevents conclusions being drawn on the relationship between employment land and aggregate use/demand.	No
Large scale local infrastructure requirements	There are a large number of infrastructure projects in the pipeline both within Warwickshire and in adjoining areas and they are very unlikely to be supplied with construction aggregates from the county. This is due to the lack of suitable quality resources, sites and production capacity, operator interest and the current market conditions.	No
NSIPs and other major projects	None of the NSIPs projects have yet provided information on the amount of materials (construction materials, waste, primary and secondary aggregates) that will be required to complete construction. The future demand for aggregates in relation to HS2 construction from Warwickshire is expected to be limited.	No
3-year aggregate sales average	The 3-year average matches the sales figure for 2023. Since the 2017 LAA the average has increased by only 63,000 tonnes. The 3-year average for crushed rock is a combined figure for Warwickshire, Staffordshire, and Herefordshire and that is rising.	No
Sub-regional apportionment figures	The sub regional apportionment is not a material factor in determining future demand of primary aggregates in the county. There are no up-to-date National and Sub-National Guidelines.	

Supply Indicators

Supply Indicators	Assessment of Indicator	Does indicator provide robust evidence that deviation is necessary from the level of planned provision?
Quality and/or capacity constraints of existing permitted reserves	Two sand and gravel sites have reserves until 2044 but one is subject to an HGV restriction. One of the other two sites has reserves but they are located beneath the existing plant site. The other site is expected to be exhausted in a couple of years' time. In terms of crushed rock only one site has HGV routing restrictions.	No
Windfall minerals permissions/trends	There have been no recent cases of windfall permissions for either sand and gravel or crushed rock.	No
Progressive exhaustion of permitted reserves over the plan period and permitted lifespan of productive sites	There are only two sites in the county producing sand and gravel and two sites producing crushed rock. There are four sites with permitted reserves of sand and gravel two of which have reserves until 2044. One of the crushed rock sites has a permission which ends in 2042. Recent submissions of planning applications for allocations in the local plan could, if permitted, add productive capacity in the county. See Appendices 2 and 4.	No
Transport constraints affecting market for aggregates	All sand and gravel and crushed rock sold from quarries in the county is transported via road. This has been the situation for many years and is unlikely to change in the future. There are no existing or planned facilities hauling materials via rail or waterway. In assessing production capacity, current limits on quarry output (imposed by planning condition) relating to quarries are considered.	No
Levels of import and exports	Warwickshire is a net exporter of sand and gravel but a net importer of crushed	No

	rock. The majority of the crushed rock produced in the county is sold in the county.	
Limited geological reserves	A previous study prepared for the former West Midlands Regional Assembly (2010) estimated that there were 3.698 million tonnes of unsterilised sand and gravel resources and 1.163 million tonnes of crushed rock in Warwickshire. Of these amounts, it was assessed that 3.491 million tonnes of sand and gravel, and 626 million tonnes of crushed rock would be constrained by international / national designations for the environment or culture. On this basis, 12% of the sand and gravel resource and 3.16% of crushed rock in the West Midlands region was estimated to be found in Warwickshire. At the time the authority questioned whether these figures were appropriate given the issues of quality and fragmented distribution of sand and gravel across the county.	No
Local plan allocations	The Minerals Local Plan 2018 was adopted in July 2022. The plan allocates six sites for sand and gravel working providing the potential for a further 7.5 million tonnes of sand and gravel to be worked in the future. Planning applications have been submitted for two of the sites with a combined tonnage of 4.1m tonnes and another one is expected shortly. There are no allocations for crushed rock.	No
Contribution from alternative aggregates	There are a number of aggregate recycling sites in the county and Dunton Quarry in North Warwickshire is the largest.	No

Conclusions

5.5 Paragraph 226 of the NPPF says that minerals planning authorities should plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregates Assessment based on a rolling average of 10 years' sales data and other relevant local information and making provision for the LAA elements in their minerals plan.

5.6 The adopted Warwickshire Minerals Local Plan which covers the time period up to 2032 and based on the production rate of 0.508 million tonnes set out in the 2017 LAA makes provision for 6.525 million tonnes of sand and gravel to be delivered through six allocations (policy MCS 2). The Plan also made a commitment to maintain at least a 7-year landbank of permitted reserves (policy MCS 2).

Landbanks

5.7 Table 5 sets out the changing picture over the years of the landbank of permitted reserves of sand and gravel in the county. There has been a gradual reduction due in part to the reassessment of reserves by industry and in part to the lack of proposals coming forward for consent. During the period 2018 -2023 only 0.5 million tonnes of new reserves was added to the landbank, and there were no refusals. As at 2023 there was a landbank of 7.14 years of sand and gravel which would still comply with the NPPF and also policy MCS 2.

5.8 If the landbank falls below the 7-year requirement that may indicate a need for new permissions, but it might also suggest that other factors may be at play such as low demand for Warwickshire products as sales rises have been modest, operator preferences, competing land use values, lack of quality resources to deliver such things as concreting sands. However, as there are two undetermined planning applications before the County Council to develop plan allocations there is an opportunity to increase sales and production and strengthen the landbank if the proposals are found acceptable and sites are brought on stream.

5.9 For crushed rock, the need to combine the figures with other MPAs tends to mask local issues but according to previous evidence there was a landbank of permitted reserves well above the 10-year requirement and that situation has not changed.

Production Rate

5.10 Tables 7 and 17 above show that the 10 year and 3-year averages are below the current production rate of 0.508 million tonnes per annum set out in the Plan. The Plan, the LAA 2017 and other documents anticipated that after the sharp decline in sales between 2009 and 2010 and thereafter eventually the market would bounce back in response to the rise in local growth particularly in housing building and infrastructure. However, the data from 2010 to 2022 shows sales at around 350- 400,000 tonnes per annum sum 100,000 tonnes below the annual production rate set in the Plan. With small production units in Warwickshire that it is the equivalent of just another site going into production.

5.11 Even then according to Table 12 and the results for 2023 the county is a net exporter of sand and gravel mainly to the adjoining West Midlands Conurbation.

Conversely the county is a net importer of crushed rock. As housebuilding uses mortar sands and road construction asphalt and crushed rock it appears that exports/imports in Warwickshire are more orientated towards delivering and receiving particular products to/from particular markets. This could be due to quality issues with the resource, operator preferences and economic conditions. With two sites being inactive productive capacity appears not to be an issue. There are two undetermined planning applications before the County Council for determination.

5.12 Table 15 shows for 2023 the total consumption of aggregates in the county (from sales and imports) was only 18% for sand and gravel but 82% for crushed rock. The table also shows consumption continuing to rise.

5.13 From the analysis in Section 4 above there is no correlation between housing completions in Warwickshire and sand and gravel sales from Warwickshire. It is nonetheless the case that housebuilding is a significant consumer of aggregate materials. The clear direction of travel is for a substantial increase in housing development and infrastructure so a failure to secure adequate permitted reserves could compromise the ability to deliver the required housing numbers to the required timescales and deliver the much-needed infrastructure in and outside the county.

5.14 The current production rate is above current sales but continues to allow for further growth especially with the national demand for more housing to be built. **On this basis therefore this LAA believes that the current approved production rate of 0.508 million tonnes per annum set out in the adopted minerals local plan is still relevant and no changes are required.**

5.15 For crushed rock the 10-year average is considered to be the best starting point for setting a production rate but due to the need to amalgamate figures for Warwickshire with Staffordshire and Herefordshire for confidentiality and reporting the LAA 2017 did not set a production rate nor the adopted minerals local plan. **As the situation remains the same in this LAA no rate is proposed to be set for crushed rock.**

Appendix 1: Consultation with Aggregate Working Parties

A draft of this Local Aggregates Assessment was sent to the West Midlands, East Midlands, Southwest, and Southeast Aggregate Working Parties for consultation in September 2025.

The following comments were received from AWP members:

AWP Member	Comments	WCC Response
Herefordshire	Herefordshire Council consider the Warwickshire Local Aggregates Assessment, to be a well thought out and detailed document. We do have a couple of comments, please see below:	Noted
	1. We note on Page 5, note 2 states "The data for Warwickshire cannot be disclosed because it is amalgamated with figures for Herefordshire and Staffordshire to maintain commercial confidentiality", we consider that while correct in parts, that for the Local Aggregates Assessment the data cannot be disclosed solely for commercial confidentiality. The amalgamation of figures was done for the West Midlands AWP AMR.	Agreed. Relevant sections amended.
	2. We note that they have only two operational Sand & Gravel quarries, we make the assumption that they have consent from the operational quarries to publish the figures they have and suggest perhaps it could be beneficial to provide clarity early on in the report.	Explanation added to paragraph 1.3.
	3. In Paragraph 1.23 it mentions "On this basis this LAA sees no clear evidence or reason to change the production rate of 0.508 million tonnes per annum set out in the	Further text and explanation added to paragraph.

	LAA 2017." We are hoping for some clarity on the text here, we are assuming that 'production rate' is continued to be based upon the 10-year sales average, this would then refer that this is not a 'set' figure. We would ask for some clarity here. 4. We would like to highlight that some areas of the LAA say "Error! Reference source not found.	Noted. Text Amended
Mineral Products Association	Executive Summary – as a general point these are better shorter and more focused – say a single side of text focusing on sales and landbank and clearly stating what the LAA provision rate is and whether additional permissions are needed. The LAA gives a picture of falling permitted reserves and steady or slightly increasing sales with applications being submitted for both sand and gravel and crushed rock. In addition, the sand and gravel landbank is only just over 7 years. All of this points to there being a need for new permissions and the LAA should be stating this. Table 1 – needs permission end dates and if available an indication of the sites productive capacity as this helps to identify the ability of existing sites to maintain an adequate and steady supply. Table 5 – falling landbank is another indicator of the need for new permissions. Paragraph 3.27 – needs a further sentence saying: However, it is clear that new permissions will be needed to continue to comply with national and local policy on mineral provision.	Noted Noted but the situation is a little more complicated and this needs to be brought out. Text amended accordingly. End dates added. Noted but the situation is a little more complicated and this needs to be brought out. Text amended accordingly. Noted but the situation is a little more complicated and this needs to be brought out. Text amended accordingly.

	Paragraph 3.43 - This again highlights the need for new permissions in order to maintain an adequate and steady supply. Table 8 – declining reserves and rising sales all point to the need for new permissions, Section 5 – The LAA needs a clear conclusion that there is a need for new permissions for both sand and gravel and crushed rock in order to maintain an adequate and steady supply of minerals	Noted but the situation is a little more complicated and this needs to be brought out. Text amended accordingly. New Text added
Somerset	We have no comment to make on the LAA.	Noted.
Worcestershire	WCC officers have reviewed the draft LAA and have no fundamental concerns with the methodology used or with the conclusions reached on the production guideline. The following aspects of the draft would benefit from clarification: • There is a recurring issue of a comma being used instead of a decimal point when referring to the level of permitted reserves, which gives the impression that there are thousands of millions of tonnes (i.e. billions of tonnes) of permitted reserves. This occurs in paragraphs 1.8, 3.40, 4.11, Table 4, and Table 8. It appears that the opposite issue also arises, with a decimal point used in place of a comma, in paragraph 4.12. • In relation to construction aggregates for future infrastructure development in Warwickshire, paragraph 1.19 states that “Reliance will have to be on surrounding counties to meet some of this future demand.” Worcestershire County Council wishes to clarify that no specific provision for any supply of aggregates for Warwickshire’s infrastructure needs has been made in Worcestershire’s Minerals Local Plan, and no provision is specifically identified in Worcestershire’s extant 2023-	Noted Agreed. Figures amended. Noted. Sentence deleted.

	data LAA or emerging 2024-data LAA. Notwithstanding this, sand and gravel from Worcestershire is predicted to continue being exported outside the county, and this could include exports to Warwickshire. Worcestershire's long-standing lack of permitted reserves of crushed rock means that no supplies of crushed rock will be available to Warwickshire for the foreseeable future.	
	The purpose of the map of the West Midlands included after paragraph 1.34 is unclear. The map is not referred to in the text and has no obvious relevance to aggregate supply.	Agreed. Explanation added as well as a new title.
	• In Table 2, it is unclear what "Landowner review" and "Operator review" mean in relation to the stages of the planning permission process.	Noted. Label amended.
	• The final sentence of paragraph 3.39 states that "There is the potential for the demand for construction minerals/materials to be offset by partial and/or incidental extraction of minerals through consideration and determination of planning applications for non- mineral development and also the allocation of development sites in District and Borough Council local plans". In the absence of evidence to the contrary, we would assume extremely negligible (if any) contributions would arise from these sources. It is unclear how the allocation of development sites in district and borough council local plans would offset aggregate demand unless there were specific prior extraction policies in place for those allocations that would deliver more than mere incidental recovery.	Noted. Last part of the paragraph deleted.
	• Paragraph 3.43 states that "Mancetter [crushed rock quarry] has applied for planning permission to extend the lifetime of the quarry for a 5-year period until 1 January 2030". This suggests that, by the end of the period covered by the LAA the quarry would have less than one year of lifetime remaining, subject to the current extension application. If the decision on the planning application to extend the lifetime	Agreed. Text amended.

	of this quarry cannot be known at the time of writing, should this potential limitation be more explicitly highlighted in the LAA?	
	• The draft LAA's repeated use of the term "Windfall supplies" to refer to unexpected minerals supplies arising from prior extraction at non-mineral development sites could be confusing. We would normally expect "windfall" minerals supplies to mean supplies from mineral sites that were not allocated in the Minerals Local Plan.	Noted. "Windfall" can mean other things but adding "or unplanned" may provide a more useful explanation.
	• The draft LAA references the 2023-data 'Collation of the Aggregate Minerals Surveys' report in some places, but other places (such as Figure 1 and Figure 2) it uses extracts from the 2019-data report.	Agreed. New Up to Date figures to be added.
	• Paragraph 3.65 notes that "There is no nationally set approach for estimating C&D waste arisings or projecting growth in C&D waste" and then reports estimated figures from the Scott Wilson Landfill Capacity Update Report (June 2009) – Scenario 1 data. We note that a guidance document - 'Recycled Aggregates Data: Guidance on Assessing Levels of Recycled Aggregates' - was prepared in 2022 by representatives from the National Waste Technical Advisory Board Chairs and Aggregate Working Party Chairs. The guidance sets out various ways of estimating recycled aggregate production, including using the Waste Data Interrogator. The guidance acknowledges that none of the different ways of estimating recycled aggregates it considers is perfect, but it may provide some more up-to-date estimates than the Scott Wilson study. All West Midlands Waste Planning Authorities can access the document through the West Midlands Resource Technical Advisory Body 'Knowledge Hub' site.	Noted. Text Amended to make reference to the guidance document.
	• The "Limited geological reserves" row of the Supply Indicators table states that: "A previous study prepared for the former West Midlands Regional Assembly (2010) estimated that there were 3.698 million tonnes of unsterilised sand and gravel resources and 1.163 million tonnes of	Agreed. Decimal point needs to be replaced by a comma. Text amended.

	crushed rock in Warwickshire. Of these amounts, it was assessed that 3.491 million tonnes of sand and gravel, and 626 million tonnes of crushed rock would be constrained by international / national designations for the environment or culture". The crushed rock numbers are confusing, as 626 million tonnes cannot be part of 1.163 million tonnes.	
SEEAWP	No comments	Noted

Appendix 2: Warwickshire Primary Aggregates Planning Applications from 2009 to 2025 (as of December 2024)

Site	Aggregate	Tonnage (million tonnes)	PA Reference Number	Development Type	Status/Date Permitted
15. Shawell Quarry	Sand and Gravel			S.73	Not validated
14. Lea Marston	Sand and Gravel			New Quarry	Not validated
13. Lawford Heath	Sand and Gravel	2.3	RBC/24CM025	New Quarry	Submitted December 2024
12. Mancetter Quarry	Crushed Rock	No additional tonnage	NWB/24CM013	Extension of Time	Submitted June 2024
11. Bubbenhall Quarry	Sand and Gravel	Onsite processing. No additional tonnage	WDC/24CM014	S.73 Extension of Time	Submitted January 2024 Undetermined.
10. Wolston Fields Quarry	Sand and gravel	0.2	RBC/23CM004	Extension	Permitted February 2025
9. Wasperton	Sand and gravel	1.835	WDC/22CM008	New Quarry	Submitted November 2022 Undetermined
8. Shawell Quarry	Sand and Gravel	0.2	RBC/18CM021	Extension	Permitted October 2019
7. Wolston Fields Quarry	Sand and gravel	0.3	RBC/19CM005	Extension	Permitted Jan 2020.
6. Shawell Quarry	Sand and gravel	0.9	RBC/17CM002	Extension New Quarry	Submitted Jan 2017 Undetermined
5. Brinklow Quarry	Sand and gravel	3.4	RBC/16M004	Extension and Extension of Time	Permitted in July 2017
4. High Cross Quarry	Sand and gravel	1.6	RBC/16M015	Extension of Time	Permitted March 2019
3. Mancetter Quarry	Crushed rock	2	NWB/14CM034	Extension	Permitted August 2015
2. Wolston Fields Quarry	Sand and gravel	0.9	RBC/12CM018	New Quarry	Permitted February 2014
1.Marsh Farm Quarry	Sand and gravel	0.5	S/09/CM018	Extension	Permitted May 2010

Appendix 3 WMAWP Demand and Supply Indicators

Local Aggregate Assessments (LAAs) – Demand forecasting indicators

(in addition to 10-year average)

A: Indicators to be used in LAAs (some may be dependent on availability/quality of data)

1	Gross housing completions (refer to MHCLG live tables on housing supply), compared with housing targets	Set over the past 10 years, or a shorter time period. Targets from up-to-date local plan and/or Government's standard methodology	Demand indicator
2	Employment land completions, compared with requirements	Strategic local plan employment allocations only. Info from AMRs or Employment Land Reviews. Timeline: over local plan period to date.	Demand indicator
3	Large scale local infrastructure requirements compared with delivery (refer to local strategic Plans and National Highways website)	e.g. new roadbuilding. Check local development plans, LEPs, local transport plans etc.	Demand indicator
4	NSIPs and other major projects (refer to National Infrastructure Planning website)	Either in mineral planning authority area or nearby e.g. HS2 or Commonwealth Games Note that developers should be encouraged to provide materials audits which could be used to predict "significant future increases in demand that can be forecast with reasonable certainty" (refer to PPG)	Demand indicator

5	3-year aggregate sales average	Caveat: Although this indicator may give figures for most recent sales, it may include unnatural fluctuations or major anomalies (e.g. due to Covid) and therefore may not be relied upon in such instances	Demand indicator
6	Sub-regional apportionment figures	Useful for comparison and context	Demand indicator
7	Quality and/ or capacity constraints of existing permitted reserves	Compare data for the overall potential permitted capacity of sites with the level of provision made in the MLP and/ or with current 10 years sales average. Consider projection of comparison over next 10 years or over remaining period of 'time horizon' of MLP.	Supply indicator
8	Windfall minerals permissions/trends	Could high levels of windfall permissions mean that these sites should have been included in local plan allocations? Or could this indicate that the minerals industry prefers to bring sites forward though planning applications, rather than through the local development plan process?	Supply indicator
9	Progressive exhaustion of permitted reserves over Plan period and permitted lifespans of productive sites.	a) Compare sales against data on the number of operational sites and new permitted reserves (assess replenishment rates). b) Record the number of sites that have ceased production of aggregates and comment on reasons for cessation if possible.	Supply indicator

		c) Record cessation dates for mineral production at permitted sites. d) Highlight sites where the MLP includes allocations for the extension of existing sites and the potential duration of continued production from allocated sites.	
10	Transport constraints affecting markets for aggregates	e.g. lack of rail freight opportunities Note output restrictions on permitted sites (number of lorry movements/ tonnages).	Supply indicator
11	Levels of imports and exports	Data is not always complete/reliable. Review data from AM Survey 2019 and compare with AM 2014	Demand/Supply indicator, depending on movements into or out of the area
12	Limited geological reserves	Generalised; not specific to particular permitted quarry operations Note LUC study for previous regional apportionment which considered the extent of aggregate resources and its constraint by international/ national designations for the environment or culture.	Supply indicator
13	Local plan allocations	See d) for 9 above.	Supply indicator
14	Contribution from alternative aggregates	Record permissions for: New / extended waste facilities with capacity for producing recycled aggregate.	

		New/ extended facilities for producing secondary aggregate from industrial by products. Permissions for major development involving redevelopment of previously developed land involving demolition/ land clearance works.	

Note: trend-based data should be used where possible, with the intention that percentage figures on how far to deviate from the 10-year average can be explained/justified.

Appendix 4: Current and Future Production based on planning application data.

Existing Mineral Sites	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
High Cross	PG.60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
Wolston Fields	100	100	PG.100	100	100	100	50	P.50	50	50																		
Brinklow	PG.170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	
LOCAL PLAN SITES																												
Site 1 Bourton on Dunsmore (1.15 mt)										P?	150	150	150	150	150	150	150	150										
Site 2 Lawford Heath (2mt) PA 2.3mt								P		250	250	250	250	250	250	250	250											
Sites 3/32 Shawell Quarry (1.1mt)	P									370	370	370																
Site 4 Wasperton (1.8 mt)						P				200	200	200	200	200	200	200	200	200										
Site 6 Coney Grey Farm, Ryton (0.4 mt)										P?		100	100	100	100													
Site 9 Hams Lane, Lea Marston (1.06 mt)									P?		100	100	100	100	100	100	100	100	100	100								
Total - Possible Production	330	330	330	330	330	330	280	280	280	1100	1300	1400	1030	1030	1030	930	930	680	330	330	230	230	230	230	230	230	230	0

Notes: P = Planning Application Submitted.
PG = Permission Granted
P? = Assumed Submission
Shawell Quarry : Undetermined planning application to work Site 3 and 32 as part of the joint application to work minerals in WCC and LCC

Where no application has been submitted then a notional annual figure has been used based on the adopted MLP