

Minerals Planning

1. The mineral resources currently worked in Shropshire are aggregates (sand and gravel and crushed rock), building stone, brick clay, fire clay and coal. The aggregates industry is the most active. These resources supply both local markets and a wider area, particularly in the case of crushed rock and fire clay where materials supply regional and national markets.

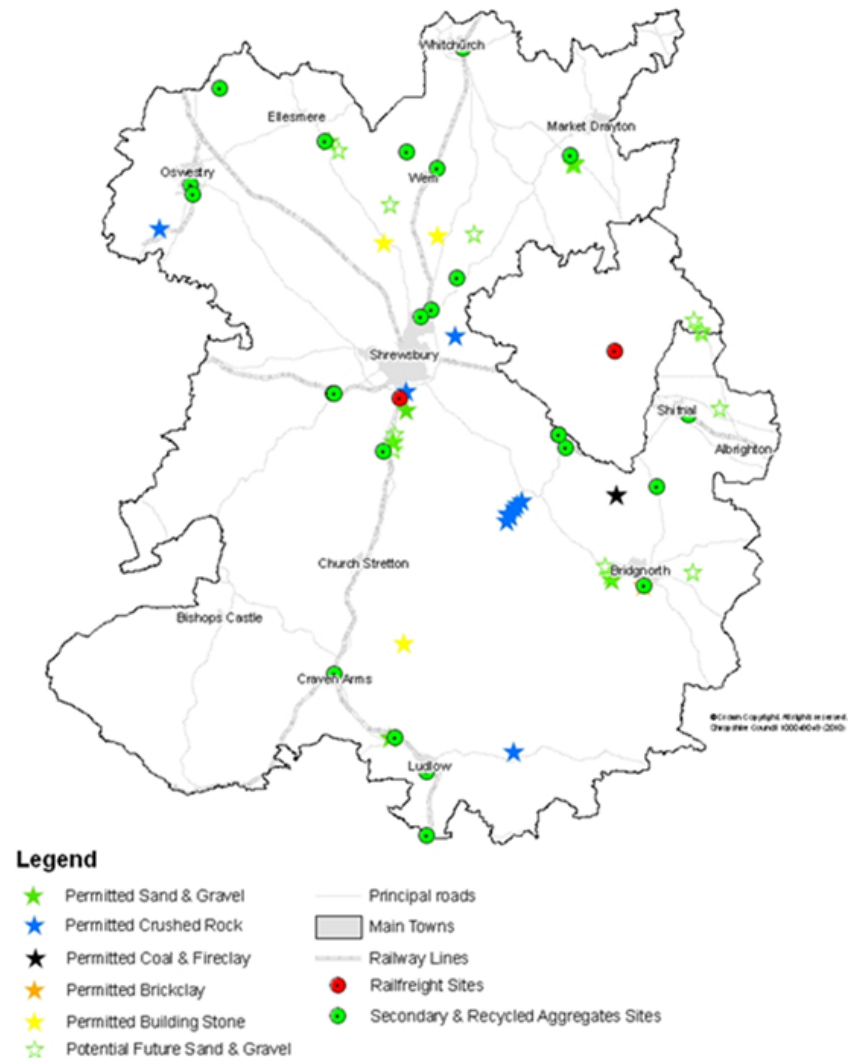
Strategic Context and the Duty to Cooperate

2. Shropshire Council has held the Chair of the West Midlands Aggregate Working Party (AWP) since 2014. Engagement with AWP is supplemented through regular contact with other MPA's, neighbouring councils, the Marches LEP and local representatives of the minerals industry.

Local Aggregates Assessment (LAA)

3. Aggregates represent the most significant mineral produced in Shropshire. National policy guidance requires Shropshire to maintain an adequate and steady supply of aggregates during the Local Plan period. The current LAA has taken account of feedback from the West Midlands Aggregates Working Party in 2018. The West Midlands Aggregates Working Party (WMAWP) has agreed to use a ten-year rolling average as the principal indicator for aggregates production, consistent with national policy guidance, pending the development of an agreed approach to forecasting future demand.
4. The purpose of the LAA is to establish whether there is a shortage or surplus of supply and provides evidence for determining the level of provision of mineral aggregates to be made in the Local Development Plans for Shropshire. For clarity, this Local Aggregate Assessment takes into account the supply and demand of aggregates for Shropshire including the area

Figure 1: Permitted and Potential Mineral Sites and Secondary Aggregate Sites in Shropshire



administered by Telford & Wrekin Council. The majority of aggregate production takes place in the area administered by Shropshire Council. There is currently no sand and gravel working, but crushed rock from a single site in Telford & Wrekin contributes about a quarter of the annual sales. Both areas contain facilities where construction, demolition and excavation waste is recycled to produce aggregates. References to Shropshire in this document relate to the area administered by both Councils. The first section of the report reviews evidence relating to the supply of aggregates in Shropshire and the report then assesses other relevant information to provide a forecast for demand and the need for additional aggregate mineral resources. Headline performance indicators for minerals are illustrated in Table 28 below.

Table 1: Headline Mineral Monitoring Indicators 2018-19

		Sand and gravel	Change	Crushed rock	Change
Production	2018 production	0.71 million tonnes	▼	3.01 million tonnes	▼
	3-year average	0.71 million tonnes	▼	2.93 million tonnes	▲
	10-year average	0.68 million tonnes	▼	2.54 million tonnes	▲
	Informatives	Production guideline based on 10-year average. No other relevant local information which indicates deviation from this average is currently required.		Production guideline based on 10-year average. No other relevant local information which indicates deviation from this average is required.	
Landbank	Reserves	10.93 million tonnes	▼	100.3 million tonnes	▼
	Landbank	16.1 years	▼	39.46 years	▼
	Minimum Landbank Required	7.00 years		10.00 years	
	Informatives	Despite having a large landbank, there are potential issues regarding productive capacity due to about 70% of reserves being contained within sites which have been unworked for over 5 years. The draft Shropshire Local Plan (2020) carries forward the allocation of two sites and anticipates the release of significant further resources through windfall applications.		N/A	

Assessment of Aggregates Supply

Sand and Gravel

5. In 2018 there were ten permitted sites for sand and gravel working in Shropshire, six of which were operational (see Appendix 1). There is also a further site where a resolution has recently been made to grant planning permission, but the site is not yet operational. The majority of the material produced is used locally within Shropshire and neighbouring areas such as Telford to supply the construction industry with building sand, concrete and concrete products;
6. The majority of sand and gravel working in Shropshire is now from glacial or bunter deposits which are of more variable quality than river terrace materials which have now been largely worked out. Sand and gravel deposits in Shropshire frequently contain a high proportion of sand and more limited quantities of gravel and often suffer from clay and lignite contamination. These characteristics mean that deposits often require additional processing to generate a saleable product. In addition, about 70% of sand and gravel reserves is contained in three site commitments which have remained unworked for over 5 years. In the case of two of these sites, the mineral operators and landowners concerned have confirmed that there is a clear intention to work these sites during the Plan Period;
7. The latest available data indicates that, at 0.71mt, sand and gravel production in Shropshire and Telford & Wrekin in 2018 is slightly above both the 10 year rolling average for sand gravel sales (0.68mt) and the same as the 3 year average (0.71mt).

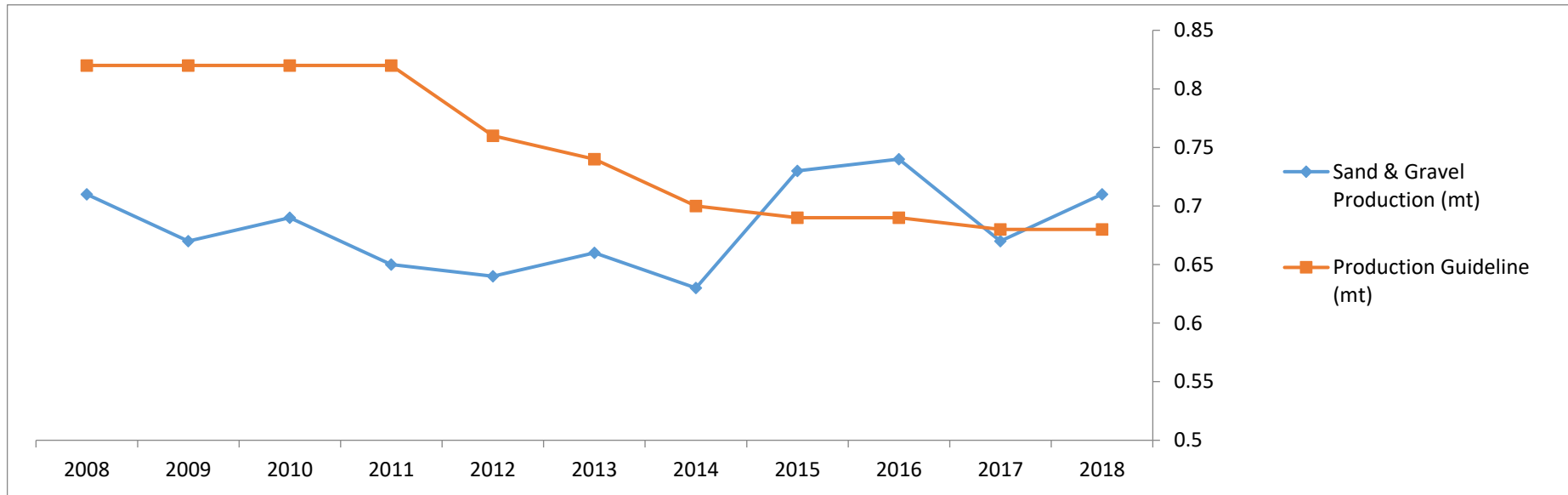
Table 21: Shropshire Sand & Gravel Sales and Production Guideline 2008-2018 (million tonnes [mt])

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
No. of Operational Sites	7	7	7	7	7	6	6	5	5	5	6
Sand & Gravel Production (mt)	0.71	0.67	0.69	0.65	0.64	0.66	0.63	0.73	0.74	0.67	0.71
Production Guideline (mt)	0.82	0.82	0.82	0.82	0.74*	0.72	0.70	0.69	0.69	0.68	0.68

Source: AWP data 2008 - 2018

*Production guideline changes from sub-regional apportionment to 10 year average trend from 2012

Figure 2: Shropshire Sand & Gravel Sales and Production Guideline 2008-2018 (million tonnes [mt])

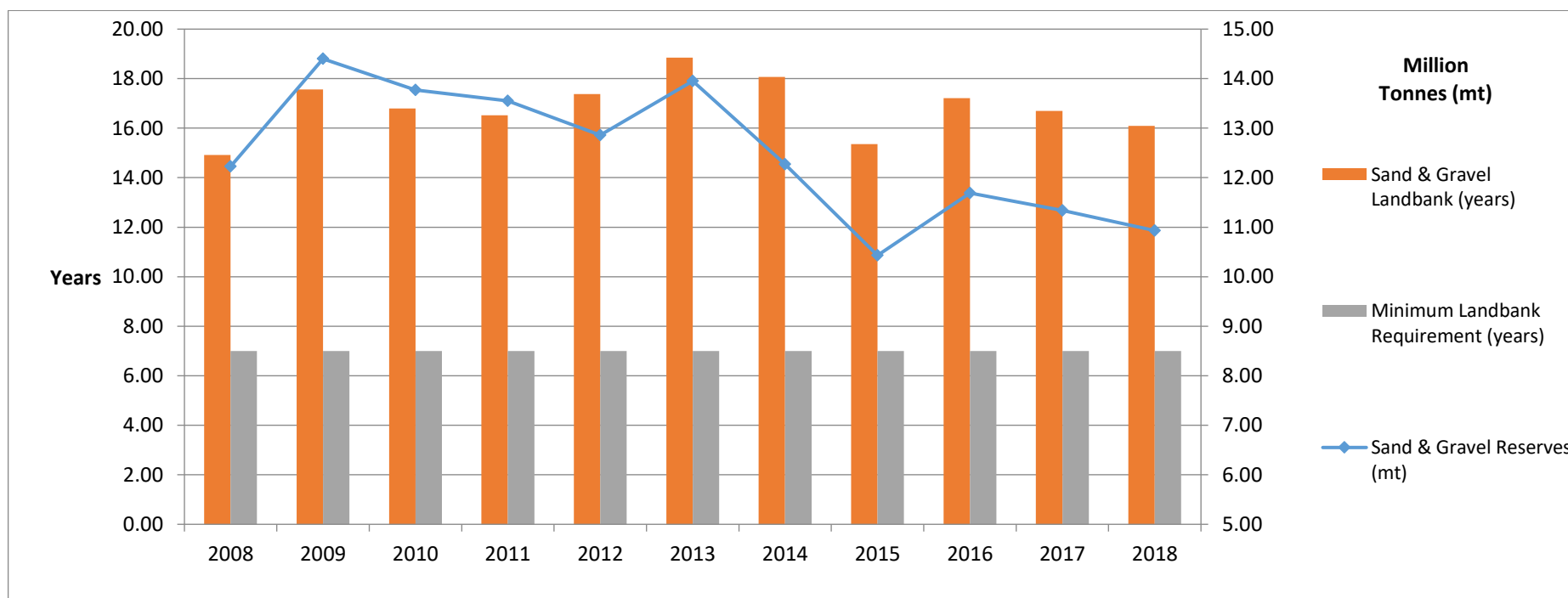


8. Aggregates monitoring data for 2018 indicates that the market area for sand and gravel aggregates produced in Shropshire is generally local and whilst some material is supplied into adjacent areas to the north and west, only a limited amount of sand and gravel produced from Shropshire is currently exported eastwards to the main markets in the West Midlands conurbation due to the availability of more proximate and higher quality materials closer to these markets, although Shropshire continues to supply significant amounts of sand and gravel for construction activity in Telford. These trends are expected to continue;
9. The landbank of permissions for sand and gravel working has remained consistently above the minimum level required by NPPF. The permitted landbank was equivalent just over 16 years' production in 2018. In taking planning decisions, Shropshire Council has consistently responded positively to both planned development and windfall applications to release more material to maintain productive capacity to counter balance the impact of the unworked site commitments referred to in paragraph 4 above. This is illustrated in Table 31 and Figure 10 below:

Table 3: Sand & Gravel Reserves and Landbank 2008-2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sand & Gravel Reserves (mt)	12.23	14.40	13.77	13.55	12.86	13.95	12.27	10.43	11.69	11.34	10.93
Sand & Gravel Landbank (years)	14.91	17.56	16.79	16.52	17.38	18.85	17.45	15.05	16.94	16.70	16.10
Minimum Landbank Required (years)	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00

Figure 1: Sand & Gravel Reserves and Landbank 2008-2018



Crushed Rock

10. The area administered by Shropshire and Telford & Wrekin Councils also produced 3.01 mt of crushed rock in 2018 against a 10 year average of 2.54 mt. The area is currently responsible for producing over half of the regional requirement for crushed rock. Production of crushed rock from a single site in Telford & Wrekin contributes about a quarter of the annual production. Crushed rock is mainly used as engineering fill, roadstone and asphalt in road construction and maintenance. High specification aggregate is exported by both road and rail to a wider regional and national market area. In 2018 there were 8 permitted sites in Shropshire, 4 of which were operational and 1 permitted and operational site in Telford & Wrekin;
11. The latest available data indicates that crushed rock production in Shropshire and Telford & Wrekin in 2018 was significantly above both the 10 year trend (2.54mt) and slightly above the 3 year trend (2.93mt) see Table 31 and Figure 11 below.
12. Aggregates monitoring data for 2018 indicates that 44% of production supplies markets within Shropshire and 29% supplies markets in other parts of the West Midlands region. However, the high polishing resistance of some crushed rock resources in Shropshire supports export to a larger market area, including by rail transport and about 26% of production supplies national markets outside the West Midlands. These trends are expected to continue.
13. The landbank of permissions for crushed rock working has remained consistently above the minimum required level of 10 years. The permitted landbank of permissions was equivalent to almost 40 years' production in 2018. This is illustrated in Table 32 and Figure 12 below.

Table 4: Shropshire Crushed Rock Sales and Production Guidelines 2008-2018 (million tonnes [mt])

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Crushed Rock Production (mt)	2.29	1.80	2.00	1.65	2.41	2.88	3.13	2.76	2.69	3.09	3.01
Production Guideline (mt)	2.95	2.95	2.95	2.95	2.95	2.95	2.36	2.39	2.39	2.47	2.54

Figure 4: Shropshire Crushed Rock Sales and Production Guidelines 2008-2018 (million tonnes [mt])

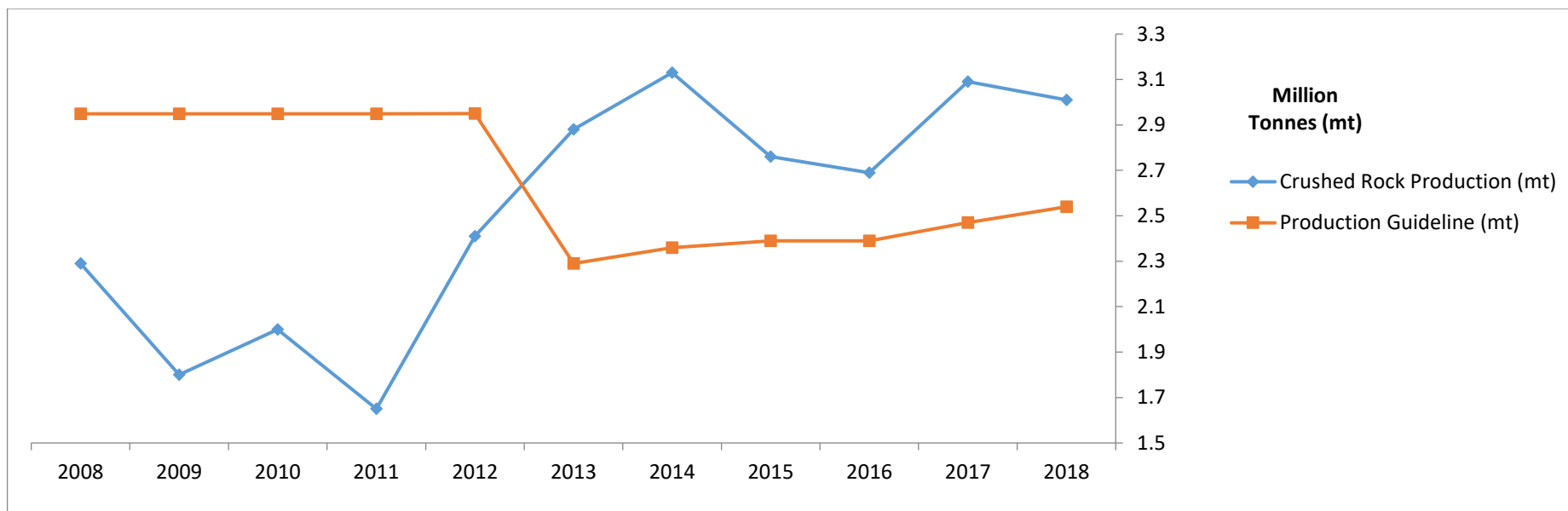
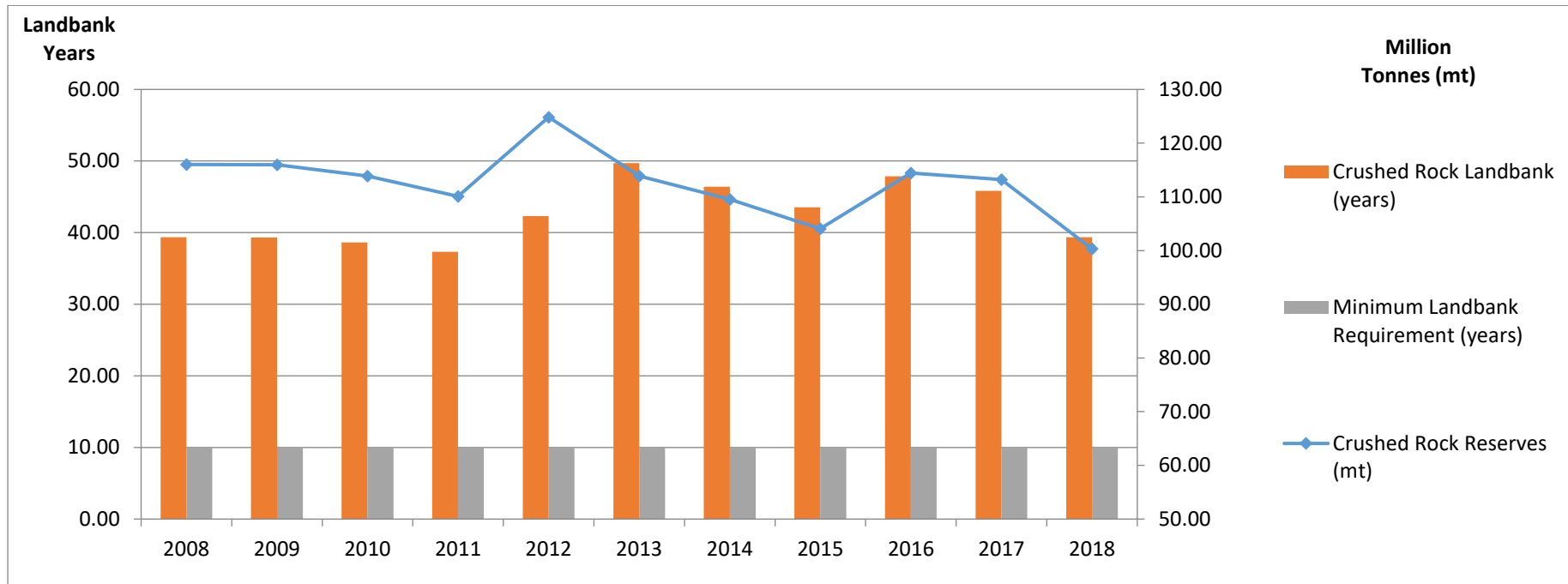


Table 52: Shropshire Crushed Rock Reserves and Landbank 2008-2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Crushed Rock Reserves (mt)	116.02	115.95	113.90	110.07	124.84	113.86	109.55	104.05	114.44	113.20	100.32
Crushed Rock Landbank (years)	39.34	39.32	38.62	37.32	42.32	38.60	46.42	43.54	47.88	45.83	39.46
Minimum Landbank Required (years)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Figure 5: Shropshire Crushed Rock Reserves and Landbank 2008-2018



Secondary Aggregates

14. Figures for secondary and recycled materials used as aggregates are currently only collected nationally and sub-nationally. The most recent information indicates that 4.37 million tonnes of construction and demolition waste was generated in Shropshire, Staffordshire and Telford & Wrekin in 2005 (Survey of Arisings and Use of Alternatives to Primary Aggregates in England [CLG 2007]). Of the material generated, 1.58 million tonnes (36%) was recycled as aggregate and 0.15 million tonnes (3%) was recycled as soil. A further 2.26 million tonnes (53%) was used as engineering material and 0.38 million tonnes (8%) was landfilled as waste. However, it is unclear whether this performance is applicable to Shropshire, since Staffordshire's economy is much larger and may therefore obscure trends in Shropshire. Limited information is available for Shropshire and Telford & Wrekin specifically: Environment Agency waste data suggests that about 0.5 million tonnes of inert waste generated in the two areas was handled at licensed waste management facilities in 2018, largely in Shropshire and neighbouring areas. Municipal waste data for 2018 indicates that about 7,500 tonnes of recycled aggregates were recovered from

municipal recycling centres and a further 18,700 tonnes of incinerator bottom ash (IBA) was recovered from the energy recovery facility in Shrewsbury.

15. Construction and demolition waste is a high density, low value material which, due to transport costs and distances in a predominantly rural area, cannot be moved more than short distances on a cost effective basis. The latest available data indicates that of the construction waste generated in Shropshire in 2018, 51% was managed in Shropshire and a further 46% in neighbouring areas. Of the material managed at licensed facilities, 55% was recycled or recovered, 1% was handled at transfer sites, but its ultimate fate is unknown, and the remaining 44% was deposited at landfill sites, although some of this material may have been used for cover and engineering purposes.

Future Aggregate Demand, Supply Options and Constraints

Forecast Demand for Aggregates: Planned Growth & Infrastructure

16. The Shropshire Local Plan Review establishes a strategic growth target of around 30,800 new homes and 300 hectares of employment in Shropshire for the period to 2038. Housing and employment land delivery has have recovered in recent years from historic low levels and this has increased local demand for construction aggregates. Record levels of housing delivery in 2017 and 2018 mean that annual demand for construction aggregates is not expected to increase demand above the level experienced in these years. Whilst new development will also require investment in infrastructure, there are no known separate national or strategic infrastructure projects in Shropshire which are likely to significantly increase demand.

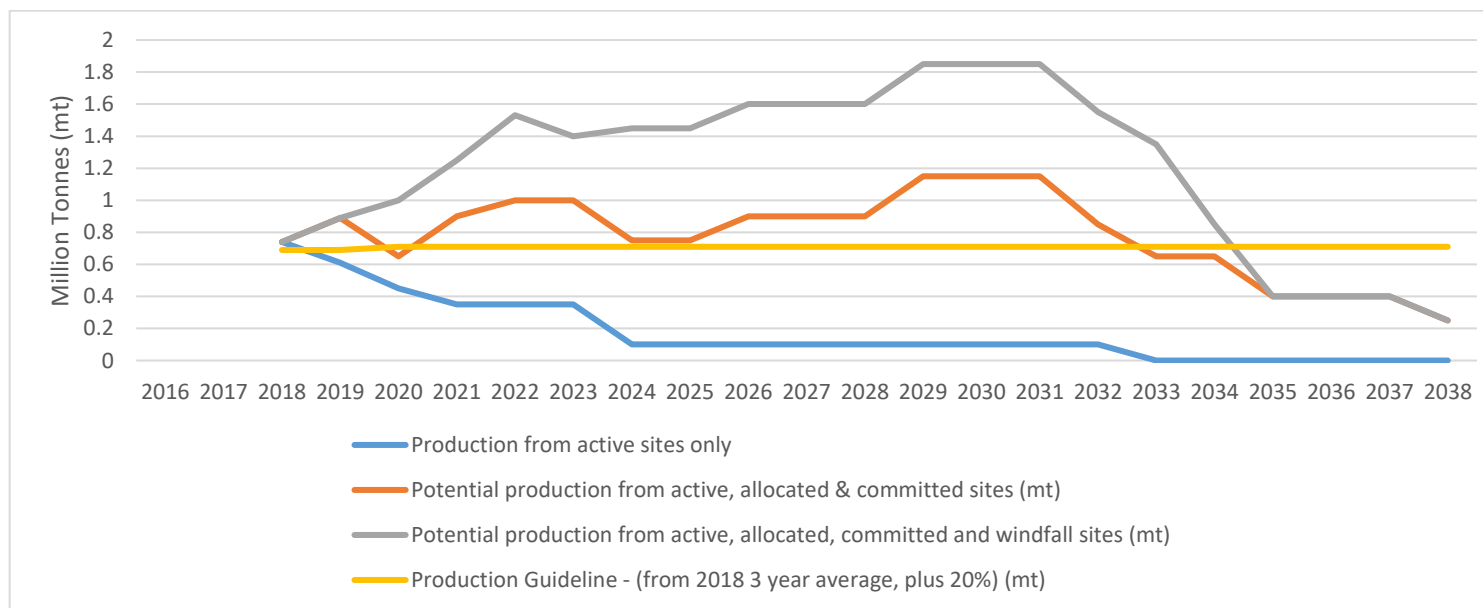
Balance between demand and supply:

17. The life of existing permitted reserves has until recently been prolonged by low levels of demand for aggregates and the size of landbanks for sand and gravel and crushed rock remain well above minimum guidelines. However, there are a number of quality and capacity constraints on the production of sand and gravel resources which are identified above. To reflect this, in Shropshire the adopted Local Plan supplements existing permitted reserves with additional allocations and a windfall allowance to ensure an adequate and steady supply for the period to 2026 as set out in the table below. Unimplemented allocation are saved as part of the draft Shropshire Local Plan (2020). There are also a number of windfall applications which have significantly increased productive capacity and further significant windfall applications are expected. Since the majority of the aggregates produced are used locally within Shropshire to supply the construction industry with building sand, concrete and concrete products, no separate provision is made for specific market sectors. In light of the recovery of demand, and the fact that the last 3 years have seen record levels of housing delivery in Shropshire, the draft Shropshire Local Plan adopts a Production Requirement based on the average of the last 3 years production plus a growth allowance of 20% since this represents a better indication of future demand than the 10 year average.

Table 63: Shropshire Local Plan Review Assessment of Production Potential (million tonnes)

	Production Potential 2016 – 2038 (Mt)
Production Requirement (3 year average 2018: 0.71, plus 20% growth allowance = 0.85) for Plan period (2018-2038), plus 7 year landbank	23
Existing Permitted Reserves	13.5
Rolled Forward Local Plan Allocations	4.0
Windfall allowance	10.5
TOTAL Production Potential	28
Production surplus	5

Figure 6: Assessment of Potential Future Sand & Gravel Productive Capacity in Shropshire 2016-2038



Mineral Transport and Handling Facilities

18. Mineral aggregates produced in Shropshire are moved almost exclusively by road. However, the Shropshire Local Plan identifies and safeguards a number of railfreight facilities, including rail sidings at Bayston Hill near Shrewsbury and the Oswestry mineral railway (Cambrian Line). The railfreight terminal in north Telford is not currently used to move mineral aggregates but could potentially be used for this purpose in future.

LAA Conclusion

19. The rates of housing and employment development in Shropshire and Telford & Wrekin have continued to recover following the recession, and this has increased demand for construction aggregates.
20. Whilst there are no known national or strategic infrastructure projects in Shropshire which are likely to increase demand, development rates are expected to continue to recover. Active and on-going engagement with neighbouring Mineral Planning Authorities suggests that the current general pattern of aggregate imports and exports can be expected to continue, although the progressive exhaustion of permitted reserves in south-west Staffordshire may start to result in additional demand from sites in eastern Shropshire and Telford & Wrekin.
21. There are a number of quality, capacity and transport constraints on the production of sand and gravel resources which mean that the market for aggregates produced in Shropshire is generally local. In addition, there are a number of unworked site commitments which require significant capital investment and it is therefore assumed that these will not make any contribution in the short term.
22. Local information about secondary and recycled aggregates is generally dated and of poor quality. Whilst there are some existing and potential sources of secondary aggregates and a large number of local recycling facilities, low values and high transport costs and distances are likely to limit the contribution which these materials can make to supply.
23. Sufficient crushed rock aggregate resources are already available from permitted sites, but although the landbank remains well above the minimum guideline, additional sand and gravel resources are required to provide for flexibility and local competition. The Shropshire Local Plan (2015) therefore supplemented existing permitted reserves for sand and gravel with additional allocations to ensure an adequate and steady supply. A number of planning applications for 'windfall' sites or site extensions are also expected to be determined during the next year in Shropshire. These resources, if consented, would provide a significant boost to the local supply of sand and gravel. No additional allocations are currently proposed in Telford & Wrekin.

Building Stone

24. In 2017, there were 3 quarries with current planning permissions for the extraction of dimension stone which is used regionally and nationally as dimension stone in building restoration projects. Local building stone is also periodically worked at one quarry in South Shropshire, mainly to repair historic buildings and structures. The Shropshire Development Plan maintains an existing flexible policy approach which allows other small quarries to open on a temporary and short-term basis in the recent past to work stone for particular local refurbishment and conservation projects.

Brick and Fire Clays

25. In 2018, there were two operational sites producing brick clay in the Plan area, with reserves totalling about 7 million tonnes. Adequate permitted reserves of brick clay exist to maintain supplies for about 30 years at current output rates. No brick manufacture takes place in Shropshire, but clay is exported to a brickworks in Telford and elsewhere in the West Midlands. Fireclay production is now centred on one specialist claypit at Caughley, south of Broseley. Fireclay produced in Shropshire is exported to support brick and tile production both in the West Midlands and nationally. The Caughley clays are of particularly high quality and are safeguarded as an increasingly important resource as other sources of high quality fireclay become scarce nationally. Clay from specific sources has also been worked in South Shropshire to match existing tiles as part of the repair of local historic buildings.

Coal and Hydrocarbon Resources

26. There has been both surface and deep mining of coal in Shropshire in the past and coal reserves remain in some areas. Coal is now only produced in small quantities in Shropshire as a by-product of fireclay working at Caughley Quarry near Broseley. Whilst exploratory drilling for coalbed methane extraction has taken place in the past in two areas, this has not resulted in active working of these resources and whilst some licence areas for unconventional hydrocarbons do fall within Shropshire, none of the licences concerned have been taken up.

Mineral Transport and Handling Facilities

27. Mineral aggregates produced in Shropshire are moved exclusively by road. However, the adopted Shropshire Core Strategy (2011) identifies and safeguards a number of railfreight facilities, including rail sidings at Bayston Hill near Shrewsbury and the Oswestry mineral railway (Cambrian Line). The railfreight terminal in north Telford is not currently used to move mineral aggregates but could potentially be used for this purpose in future.

Appendix 1: Mineral and Active Recycling Sites in Shropshire

Active Sand & Gravel Sites

Site Name	Operator	Grid Reference
Wood Lane Quarry	Tudor Griffiths	SJ 422 328
Norton Farm Quarry	Hanson Aggregates	SJ 497 075
Bromfield Quarry	Plymouth Estates	SO 481 773
Gonsal Quarry	Salop Sand & Gravel	SJ 484 044
Bridgwalton Quarry	Salop Sand & Gravel	SO 689 920
Woodcote Wood	NRS Ltd	SJ 773 149

(Source: local monitoring information 2018)

Sites which benefit from resolutions to grant planning permission

Site Name	Operator	Grid Reference
Shipley	JPE Holdings Ltd	SO 813 963

(Source: local monitoring information 2018)

Inactive Sand & Gravel Sites

Site Name	Operator	Grid Reference
Sleap Quarry	Hanson Aggregates	SJ 480 265
Morville Quarry	Lafarge Aggregates	SO 685 936
Buildwas Quarry	Harry Price Sand and Gravel	SJ 647 041
Cound Quarry*	Hanson Aggregates	SJ 550 060
Conyburg Wood Quarry	Hanson Aggregates	SJ 675 274

*statutorily dormant

(Source: local monitoring information 2018)

Active Crushed Rock Sites

Site Name	Operator	Grid Reference
Haughmond Hill Quarry	Aggregate Industries	SJ 542 148
Clee Hill Quarry	Midland Quarry Products Limited	SO 599 762
Llynclys Quarry	Tarmac Trading Limited	SJ 264 242
Bayston Hill Quarry	Tarmac Trading Limited	SJ 493 091
Leaton Quarry	Breedon Southern Limited	SJ 618 113

(Source: local monitoring information 2018)

Inactive Crushed Rock Sites

Site Name	Operator	Grid Reference
Farley Quarry	"non-mineral owner"	SJ 629 017
Callow Quarry	Tarmac Trading Limited	SJ 387 050
Coates Quarry	Aggregate Industries	SO 602 994
New Hadley Quarry	Michelmersh Brick Holdings PLC	SO 590 980
More Quarry*	Tarmac Trading Limited	SO 325 933
Blodwell Quarry	Midland Quarry Products Limited	SJ 257 229
Nantmawr Quarry*	Midland Quarry Products Limited	SJ 253 242

**statutorily dormant*

(Source: local monitoring information 2018)