

Local Aggregates Assessment 2023 (Reporting on 2022 data)

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Executive summary

The National Planning Policy Framework requires Mineral Planning Authorities to plan for a steady and adequate supply of aggregates by preparing a Local Aggregates Assessment (LAA). The LAA is required to:

- forecast the demand for aggregates based on average 10-year sales data and other relevant local information;
- analyse all aggregate supply options; and
- assess the balance between demand and supply.

This is the 2023 edition and includes the most recent (2022) aggregate sales and reserves data for Rutland. The ten year period covered by this LAA is 2013 to 2022. The main facts and figures from the report (by aggregate type) are set out below:

Crushed rock (limestone)

- Rutland has three crushed rock quarries. Estimated reserves as of 31 December 2022 cannot be published for confidentiality reasons.
- Crushed rock sales were relatively high in 2003 before gradually decreasing year on year until 2011. Since 2011 sales generally increased annually with a particularly large increase between 2016 and 2017 (51%). Between 2018 and 2020 sales decreased and in 2020 sales were 43% lower than in 2019, which may have been due to COVID-19 suppressing figures in 2020. Sales picked up again in 2021 and between 2021 and 2022 sales increased by 22%.
- In 2019 14.1 million tonnes (Mt) of crushed rock was produced in the Leicestershire and Rutland sub-region of which 8 Mt (57%) was exported. 0.36 Mt of crushed rock was imported, leaving an export/import balance of -7.6 Mt; making the sub-region a significant net exporter.
- The average crushed rock sales for the most recent ten-year rolling period (2013 2022) and most recent three-year rolling period (2020 2022), are 0.28 million tonnes per annum (Mtpa) and 0.27 Mtpa respectively. Under every provision rate there are sufficent permitted reserves (as of 31/12/2022) to maintain the government required ten-year landbank.

Sand and gravel

- There are no sand and gravel quarries in Rutland and no evidence that this material has been worked in the past.
- In 2019 imports of sand and gravel into the Leicestershire and Rutland sub-region totalled 0.687 Mt. Rutland does not produce sand and gravel and as such is a net importer.

Secondary and recycled aggregate

- One site in Rutland has permission for the recycling of inert construction, demolition and excavation (CD&E) waste to produce recycled aggregate. Located within a quarry, it is a temporary facility with a capacity of 0.11 Mtpa.
- Rutland does not have any sites for the production of secondary aggregates.
- An annual provision rate for recycled aggregate is not identified due to a lack of available local sales data. There is also no requirement to do so.

Aggregate	Sales in 2022 (million tonnes)	Change in sales from previous year	10 year sales average (million tonnes)	3 year sales average (million tonnes)	Sales Trend (10 years)	LAA annual provision rate (million tonnes)	Permitted reserves at 31 December 2022 (million tonnes)	Change in permitted reserves from previous year	Landbank (years)	Change in Landbank from previous years
Crushed Rock	С	↑	0.28	0.27	↑	0.28	С	→	37	V
Recycled Aggregates	С	→	U	С	\downarrow					

1. Introduction

- 1.1. The supply of land-won aggregate in England is based on the national Managed Aggregate Supply System (MASS) which seeks, through Government guidance, to ensure a steady and adequate supply of aggregates; handling the significant geographical imbalances in the occurance of suitable natural aggregate resources, and the areas where they are most needed.
- 1.2. The National Planning Policy Framework (NPPF) sets out the requirement for Mineral Planning Authorities (MPAs) such as Rutland County Council to plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregates Assessment (LAA). The LAA is required to assess the demand for, and supply of, aggregates in the MPA's area covering:
 - A forecast of the demand for aggregates based on the rolling average of 10-years sales data and other relevant local information:
 - An analysis of all aggregate supply options, as indicated by landbanks, mineral plan allocations and capacity data. This analysis should be informed by planning information, the aggregate industry and other bodies such as local enterprise partnerships; and
 - An assessment of the balance between demand and supply, and the economic and environmental opportunities and constraints that might influence the situation. It should conclude if there is a shortage or a surplus of supply and, if the former, how this is being addressed.
- 1.3. This LAA details the current and future situation in Rutland in terms of aggregate supply and demand including sales data, imports and exports and aggregate apportionment / provision rates to 2041. It presents provision rates based on the most recent 10 and 3-year average aggregate sales and considers how local circumstances may impact on future aggregate supply and demand.
- 1.4. The LAA is submitted to the East Midlands Aggregates Working Party (EMAWP), an advisory body made up of MPAs and industry representatives across the region, for consideration and scrutiny. The AWP has a role to monitor the operation of the MASS through providing technical advice, particularly on supply provision.

Data limitations

1.5. To protect commercial confidentiality, sales and reserve figures for crushed rock in 2022 cannot be identified. Further, these figures cannot be published in order to protect the commercial confidentiality of Leicestershire's two crushed rock (limestone) quarry operators. The EMAWP Annual Survey Report presents combined crushed rock (limestone) data for the adjoining counties of Rutland and Leicestershire to enable Leicestershire's data on igneous rock to be published separately. Leicestershire is a major supplier of crushed rock nationally and the four active igneous rock quarries together account for over 60% of the igneous rock output in England. These quarries include the supply of high-quality crushed rock suitable for higher specification end-uses, of which there are relatively few alternative sources in England. The only way Rutland's figures could be presented separately from Leicestershire's would be for Leicestershire to combine their igneous and limestone rock figures, but in terms of useful data for the region as a whole it is not considered to be a good option and is not supported by the EMAWP.

Aggregate supply and demand

Geology

- 1.6. The bedrock geology of Rutland largely consists of sedimentary rocks of the Jurassic Period including sandstone, mudstone and limestone (Figure 1). Areas of superficial deposits of limestone, clay and sand and gravel obscure this underlying geology (Figure 2).
- 1.7. Mineral resources are concentrated almost exclusively in the eastern half of the county and consist mainly of Lincolnshire Limestone and Siliceous clay. Some isolated pockets of glacial, sub-alluvial and river terrace sand and gravel deposits exist around the edge of the county, particularly in the Welland Valley.

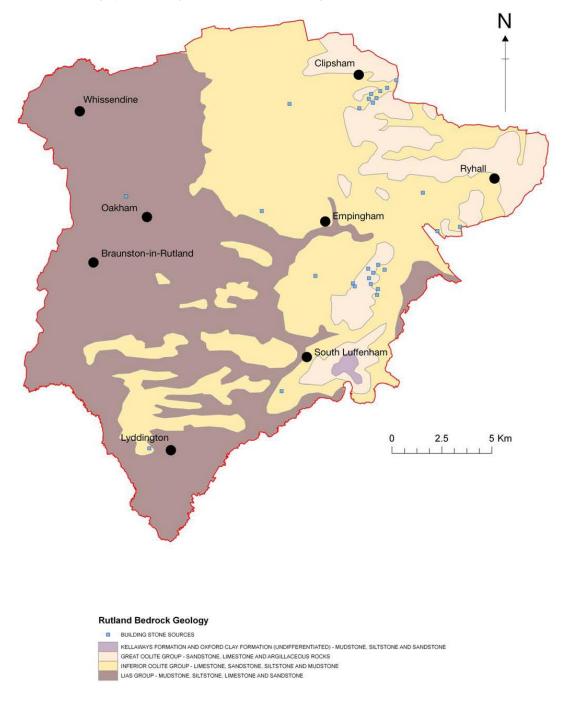


Figure 1: Geological bedrock map of Rutland

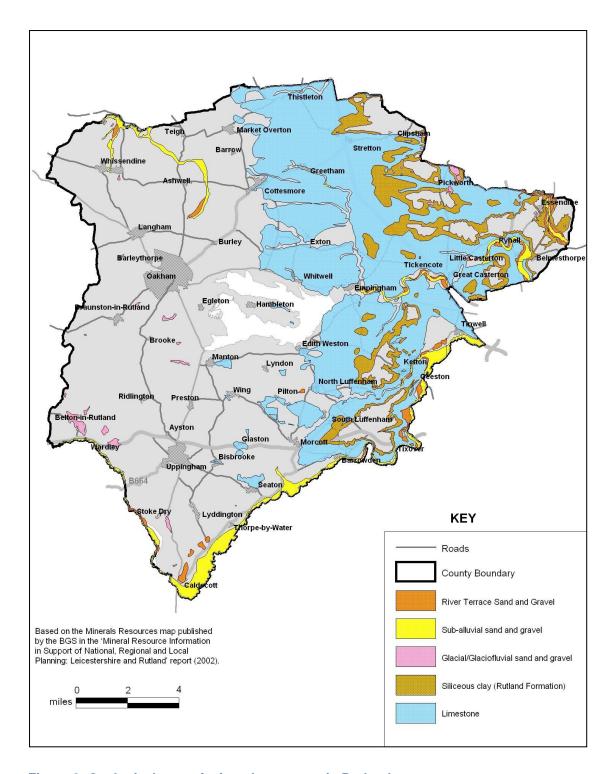


Figure 2: Geological map of mineral resources in Rutland

Limestone

Current supply

1.8. Historically, in terms of economic value, limestone has been the most important mineral resource found in Rutland. It is utilised as a source of crushed rock for uses such as constructional fill, roadstone and concrete and also for non-aggregate purposes including building stone, agricultural use and cement manufacture.

1.9. Rutland is relatively small in terms of mineral production; in 2022 there were three quarries with planning permission for the extraction of crushed rock. The details of these sites are presented in Table 1 and their locations within the county are shown in Figure 3.

Table 1: Permitted sites in Rutland for the extraction of crushed rock (as of 31/12/2022)

Map no.	Site	Operator	Status (as of 31/12/2022)	Permission end date
1	Clipsham Quarry	Stamford Stone Company Ltd	Active: Clipsham Quarry has permission for the extraction of 5 Mt of limestone.* A southern extension to Clipsham Quarry was permitted in 2020 however both the original quarry and southern extension are classified as one site due to both sites being worked simultaneously by the same operator and combined reporting of reserve and sales figures.	2061
2	Woolfox Quarry	Bullimores Sand & Gravel Ltd	Active: Quarry has permission for the extraction of 1.8 Mt of limestone*.	2024
3	Thistleton Quarry		Inactive 'Active Phase one' site with modern planning conditions for limestone extraction*. Quarry has permission for the extraction of 6.4 Mt of limestone.	31/12/2042

^{*}Permission also includes reserves of non-aggregate limestone

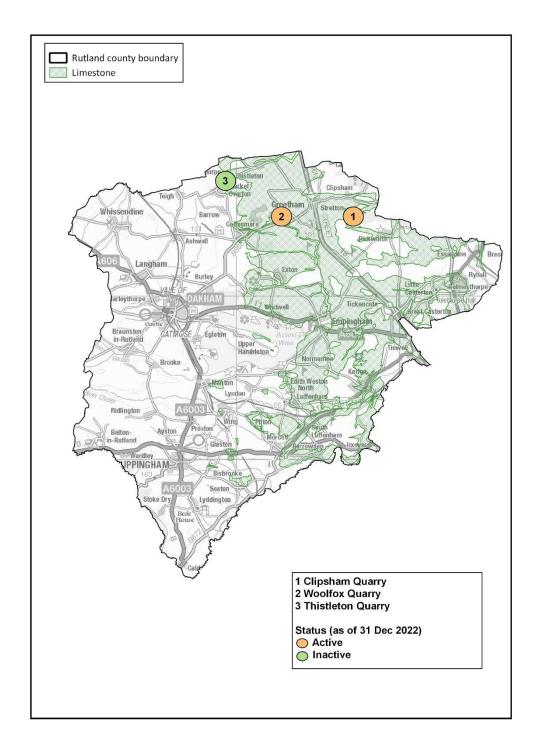


Figure 3: Geology of Rutland with permitted crushed rock sites

- 1.10. At the end of 2022 two of the three quarries were active. Lincolnshire limestone is extracted from Clipsham Quarry (Clipsham), and Woolfox Quarry (Greetham) within the north-eastern part of the county, close to the border with Lincolnshire. Thistleton Quarry was inactive. In February 2023 permission was granted for a north western extension to Greetham Quarry for the extraction of 3 million tonnes (Mt) of crushed rock. The extension and site will thus be surveyed in 2024 and reported on in next year's LAA.
- 1.11. Thistleton Quarry, in the north of the county, is an old ironstone permission with modern planning conditions. The Environment Act 1995 introduced a new requirement for MPAs

- to review and update old mineral planning permissions by imposing modern operating, restoration and aftercare conditions upon the site. Operations at this site have yet to commence pending the construction of a dedicated quarry haul road. As a consequence of the modern planning conditions the current permission is now formally for limestone extraction and not ironstone.
- 1.12. Estimated crushed rock reserves in the county as of 31 December 2022 can not be published for confidentiality reasons. The reserve data was retrieved from the 2022 AM survey returns, the latest data available at time of writing.
- 1.13. Two further limestone quarries are permitted in Rutland; Hooby Lane Quarry (Stretton) and Grange Top Quarry (Ketton) (known also as Ketton Quarry) however these quarries extract limestone for non-aggregate purposes only. The largest minerals operation in the county is at Ketton Quarry which uses limestone extracted at the adjacent Grange Top Quarry for the manufacture of cement. The site is also understood to have small reserves of freestone. Hooby Lane Quarry produces limestone for building stone purposes.

Rutland sales

1.14. To protect commercial confidentiality sales figures cannot be identified; however the general trend of sales for the ten year period 2013 - 2022 is shown in Figure 4. Sales figures are shown up to the end of 2022 as this is the most recent data available. The 2022 sales figure is based on data retrieved from the AM survey returns.

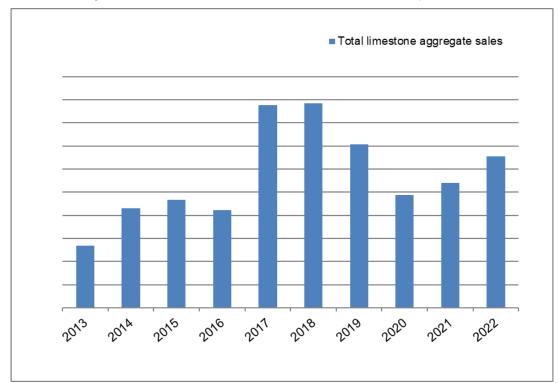


Figure 4: The trend of crushed rock sales in Rutland (2013 – 2022)

1.15. Crushed rock sales were relatively high in 2003 before gradually decreasing until the low points in 2009 to 2011. Since 2011 sales increased annually however, between 2015 and 2016, sales decreased slightly (by 9%) before a large increase in 2017 (51%). Sales increased again in 2018 but were only marginally higher than the previous year (<1% increase). Between 2018 and 2020 sales decreased and in 2020 sales were 43% lower compared with the previous year. However sales picked up again in 2021 and between 2021 and 2022 sales increased by 22%.</p>

1.16. The pattern of sales largely reflects fluctuations in the economic cycle, with a period of relatively high production in 2007 before the economic down turn and subsequent period of relatively low growth between 2009 and 2013. The relatively higher production levels between 2014 and 2019 is reflective of a recovering economy. Sales declined in 2019 and 2020 which may in part be due to the reserves of one site nearing exhaustion and, in 2020, the impact of Covid-19 virus pandemic that affected the global economy. Production levels in 2021 and 2022 saw an increase as the economy started to recover from the Covid-19.

Imports and exports

- 1.17. A national AM survey is conducted by the Department for Levelling Up, Housing and Communities (DLUHC) and British Geological Society (BGS) every four to five years which includes analysis of movements (imports and exports) of aggregates for each MPA in England and Wales. The latest survey was undertaken in 2019 and surveys prior to this were undertaken in 2014 and 2009.
- 1.18. Imports data for Rutland is combined with Leicestershire as one sub-region however sales data is presented separately. Results of the 2019 survey show that overall movements of crushed rock into and out of the sub-region are not self-balancing; the sub-region is a significant net exporter of crushed rock. This reflects the strategic location of the sub-region and the fact that Leicestershire has traditionally being a big supplier of crushed rock (igneous rock). There are several quarries in Leicestershire which are nationally important and significant producers of igneous rock. There is limited demand in Rutland for such aggregate to supply major construction projects, this is reflected in the amount of exports and indicates that demand for aggregate is from further afield.
- 1.19. In 2019 imports of crushed rock into the sub-region totalled 0.36 Mt, leaving an export/import balance of -7.6 Mt (Table 2). Results from the earlier 2014 AM Survey showed that the sub-region was, not surprisingly, also a significant net exporter with 0.27 Mt imported and and 8.87 Mt exported (62% of the total produced) (Table 2).

Table 2: Leicestershire and Rutland's crushed rock imports and exports 2014 and 2019 (million tonnes)

Year	Total sales	Imports: Leicestershire and Rutland sub- region	Exports: Leicestershire and Rutland sub- region	Balance
2014	14.3 Mt Leicestershire and Rutland sub-region (0.21 Mt Rutland)	0.27	8.87	-8.6
2019	14.1 Mt Leicestershire and Rutland sub-region (0.25 Mt Rutland)	0.36	8	-7.6

Note: (i) In balance column, a '-' prefix indicates a net export. (ii) As Leicestershire and Rutland are reported on a sub-regional basis the above figures do not include imports/exports within the sub-region (i.e. between Leicestershire and Rutland). Source: AM survey 2014 and 2019 (Table 9e: Sales of primary aggregates by MPA and principal destination sub-region, and Table 10: Imports of primary aggregates by sub-region).

1.20. Crushed rock produced within the Leicestershire and Rutland sub-region in 2019 totalled 14.1 Mt of which just under a half (around 6.1 Mt) remained within the sub-region. Exports from the sub-region totalled 8 Mt (57% of the total produced) with 1.48 Mt staying within the East Midlands region and the remainder exported to other areas outside of the region (Table 3). The main destinations for crushed rock exported beyond the East Midlands were the West Midlands (17%) and East of England (36%).

Table 3: Destination of crushed rock produced in Leicestershire and Rutland 2019

Destination	Million tonnes
Leicestershire and Rutland	6.14
Remainder of East Midlands	1.48
Total East Midlands	7.62
North West	0.35
Yorkshire and Humber	0.46
West Midlands	1.38
East of England	2.85
London	0.43
South East	0.70
South West	0.14
Elsewhere	0.06
Total outside East Midlands	6.37
Unallocated	0.09
Total crushed rock produced	14.1
Total exports East Midlands (excluding sub-regional	1.48
flows within Leicestershire and Rutland)	
Total exports England and Wales (excluding sub-	8
regional flows within Leicestershire and Rutland)	

Source: Collation of the results of the 2019 Aggregate Minerals Survey for England and Wales report.

1.21. Specific to Rutland, information on mineral movements in 2019 is limited. 42% of crushed rock sales in Rutland were exported to the East Midlands region however the remainder was sold to either an unknown destination or not allocated a destination, as shown in Table 4. Mineral movements data is more complete for 2014 and of the crushed rock produced, most was used within the sub-region (28%) or exported to Northamptonshire (26%) (Table 4).

Table 4 Destination of crushed rock produced in Rutland in 2014, 2018 and 2019

Destination	Percentage of crushed rock (limestone) in 2014	Percentage of crushed rock (limestone) in 2018	Percentage of crushed rock (limestone) in 2019
Bedfordshire (Central Bedfordshire, Bedford & Luton)	2%	-	
Cambridgeshire and Peterborough	17%	92%	
Unknown but somewhere in the East of England	6%	-	
Leicestershire and Rutland	28%	3%	
Lincolnshire	15%	<1%	
Northamptonshire	26%	5%	
Unknown but somewhere in the East Midlands	6%	-	42%
Elsewhere			20%
Unallocated			38%

1.22. As part of the 2019 AM survey (2018 data), additional information on minerals movements was also sought. It should be noted that this information was obtained by some, but not all, AWPs and was not part of a national survey. Results showed that the majority of limestone produced in Rutland in 2018 was exported to Cambridgeshire and Peterborough (92%) with the remainder to areas within the East Midlands (Table 4). Compared with mineral movements in 2014, significantly less limestone was used within the sub-region and East Midlands region and more was exported outside the region to the neighbouring area of Cambridgeshire and Peterborough. It is possible that the large amount of exports to Cambridgeshire and Peterborough could have been significantly influenced by the major A14 Cambridge-Huntingdon Improvement that was ongoing at that time.

Sand and Gravel

Supply and sales

1.23. There are currently no sand and gravel quarries in Rutland and historically there is no evidence that this material has ever been worked.

Imports and exports

1.24. Rutland does not produce sand and gravel and as such is a net importer. The 2019 AM survey identifies that imports of sand and gravel into the Leicestershire and Rutland subregion totalled 0.687 Mt. This is a 16% increase on imports in 2014 when 0.573 Mt of sand and gravel was imported.

Ironstone

1.25. Historically ironstone has been worked in the county however there have been no ironstone workings since the 1970s due to a lack of demand. Three ironstone sites in Rutland are dormant and would have to be subject to modern planning conditions before they could operate again. Thistleton Quarry was formerly a dormant ironstone site but now has modern planning conditions to permit limestone extraction.

Clay

1.26. There are significant clay resources in the eastern part of the county but historically Rutland has not produced significant amounts of clay. Two sites currently have permission for clay extraction; Little Casterton (currently dormant) and Ketton Quarry (currently active). Clay is used in the production of cement at the Ketton Cement works which uses onsite clays for the manufacture of cement at the adjacent works.

Recycled and secondary aggregates

- 1.27. Recycled aggregates, which include concrete, stone and brick are sourced from reprocessed materials that have previously been used in construction, demolition and excavation (CD&E) work. Secondary aggregates are usually by-products of other industrial processes that have not been used in construction. They include both natural and manufactured materials such as china clay, slate, flue ash and slag. Secondary and recycled aggregates are lower-grade than primary aggregates but can be used as a substitute for primary aggregates (e.g. sand and gravel and crushed rock).
- 1.28. There is an increased importance of, and reliance on, alternative aggregate sources. Production of recycled and secondary aggregates is increasing in England and Wales especially following the introduction of the Landfill Tax, which discourages the disposal of waste to landfill, and the Aggregates Levy which taxes the extraction of primary aggregates. It is estimated that up to 28% of total aggregate production and consumption in England is comprised of secondary and recycled aggregates. As the alternative aggregate sector grows, and provided the aggregate produced is of good quality, the reliance on primary aggregates will reduce.
- 1.29. As reported in the EMAWP Annual Monitoring Report 2022 (2021 data) (the latest report available), attempts have been made to measure and gain an understanding of the extent to which recycled and secondary materials have been used. However, there have been severe difficulties in obtaining reliable and quality data (even for a single year), as the return of survey forms is limited. The best available data for recycled and secondary aggregates is that provided through the Environment Agency's Waste Data Interrogator (WDI). Data for 2021 (the latest data available) shows that no recycled aggregates were produced in Rutland.
- 1.30. In 2022 Rutland had one permitted site at Woolfox Quarry (Greetham) for the recycling of inert CD&E waste to produce recycled aggregates, as shown in Table 5. It is a

temporary facility located within Woolfox Quarry with permission due to expire in line with the date of the quarry being worked. This permission may be further extended or it is possible it will be replaced by permissions at other sites.

Table 5: Permitted site in Rutland for processing CD&E waste to produce recycled aggregates

Site	Operator	Status	Permission end date	Annual consented throughput (tonnes per annum)
Woolfox	Bullimores	Active	2024 (associated	109,500 of inert waste
Quarry,	Sand and		with end life of	including soils, wood and
Greetham	Gravel Ltd		quarry operations)	construction waste

- 1.31. There are currently no industrial processes in Rutland known to produce secondary aggregates.
- 1.32. The data available on secondary and recycled aggregate is variable and not considered completely reliable, particularly at the sub-regional level.

2. Future aggregate supply

Aggregate provision

- 2.1. An annual aggregates provision figure for Rutland is required to ensure an adequate and steady supply of aggregates is maintained to meet anticipated needs of the construction industry and support housing provision and growth.
- 2.2. National guidelines for aggregate provision are set out in the NPPF. These require each MPA to calculate their own provision rates on the basis of average aggregate sales over a 10-year rolling period and other relevant information.
- 2.3. Government Planning Practice Guidance for Minerals (DCLG, 2014 paragraph 64) states that MPAs should also look at the average three year sales to identify the general trend of demand and whether it may be appropriate to increase supply.

Crushed rock

2.4. Table 6 presents the total crushed rock sales in Rutland during the ten year period 2013 – 2022 and shows the 10-year average sales for the period 2013 – 2022 and 3-year average sales for the period 2020 – 2022. To protect commercial confidentiality annual sales figures cannot be published.

Table 6: Total crushed rock sales in Rutland 2013 - 2022

Year	Limestone (Mt)
Total sales 2013 – 2022	2.82
10-year average 2013 – 2022	0.283
3-year average 2020 – 2022	0.267

^{&#}x27;c' confidential

2.5. The average sales for the 10-year period (2013 - 2022) is 0.28 Mtpa and the average sales for the 3-year period (2020 – 2022) is 0.27 Mtpa.

Sand and gravel

2.6. Sand and gravel is not currently extracted in Rutland, nor has it been historically. It is not necessary therefore to identify a provision figure for this material.

Secondary and recycled aggregates

2.7. An annual provision rate for recycled aggregate is not identified due to the lack of available local data. However, there is also no requirement to do so.

Landbanks

2.8. A landbank is a stock of planning permissions for mineral extraction which are calculated by dividing permitted reserves by the apportionment / provision figure. The NPPF requires landbanks of at least 10 years for crushed rock to be maintained. Landbanks as of 31 December 2022 are shown in Table 8. Under the apportionment/provision rates the landbank is significantly higher than the 10 year level.

Table 8: Landbanks for crushed rock in Rutland in 2022

	Adopted MCS apportionment rate (2010)*	Emerging Rutland Local Plan Provision rate**	10-year average sales provision rate (2013 – 2022)	3-year average sales provision rate (2020 – 2022)
Annual provision rate (Mtpa)	0.30	0.28	0.28	0.27
Permitted reserves (as at 31/12/22) Mt	Confidential	Confidential	Confidential	Confidential

Landbanks	35	37	37	39
(rounded to full years)				

^{*}Figure derived from the East Midlands Regional Spatial Strategy (2005) (now abolished) which apportioned a regional figure for limestone supply between MPAs in the East Midlands. This figure is presented in Rutland's Minerals Core Strategy and Development Control Policies document (adopted 2010). This 'apportionment' approach has now been superseded by the 'provision' approach as outlined in the NPPF.

^{**}If this is to be based on 10-year average sales (2013 - 2022).

3. Consideration of local circumstance

- 3.1. The NPPF requires MPAs to base their future mineral requirements on average sales over a 10 year period, factoring in relevant local information where applicable.
- 3.2. Local factors affecting the supply and demand of crushed rock in Rutland are discussed and forecasted below. No apportionment has previously been identified for sand and gravel in Rutland due to no output, therefore consideration of local information affecting its supply and demand is not included.

Demand for crushed rock

Construction levels and population growth

- 3.3. Crushed rock (limestone) is used in the construction industry for purposes such as the making of concrete and mortar or for construction fill, roadstone or drainage material. The level of construction, including house building and infrastructure, therefore contributes to the demand for limestone and are key local factors to consider when determining a provision figure for Rutland.
- 3.4. The rate of house building in Rutland has fluctuated over the last twenty years. Figure 5 shows the number of housing completions over the last 10 years between 2012/13 and 2021/22. Since 2012/13 the number of completions generally increased annually, indicating a growth in construction activity in the county and recovery from the economic recession. However between 2018/19 and 2021/22 completions decreased annually and in 2021/22 there were only 96 completions, a decrease of 29% compared with the previous year. In 2020/21 and 2021/22 the construction industry was significantly impacted by the Covid-19 pandemic.

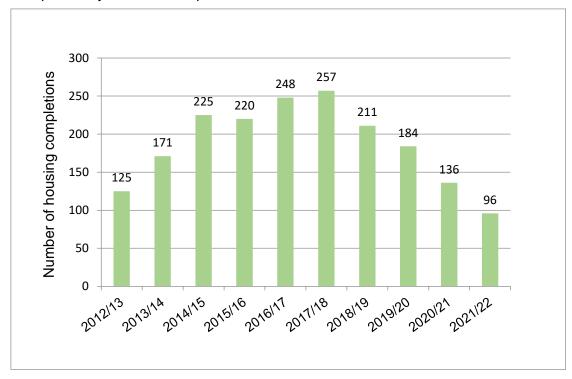


Figure 5: Net housing completions in Rutland 2012/13 - 2021/22

3.5. The economic downturn saw a decrease in the rate of house building across Rutland, resulting in fewer housing completions compared to Housing Trajectory targets. However since 2013/14 and up until 2019/20 the housing completion target of 150 dwellings has regularly been met. The target was not met in 2020/21 or 2021/22 but this is likely due to the impact on construction from the Covid-19 pandemic and it expected

- the completions figure will continue to rise again as the economy recovers from the pandemic. The Governments standard methodology for calculating housing need calculates a requirement of 123 dwellings per annum, in 2021/22 housing completions were 25% below this target.
- 3.6. Rutland is a small, predominantly rural county. It has been classed as the most rural county in England and Wales, with a high proportion of land in agricultural use. The latest population estimate for the county is 40,771 (ONS 2021). The population is projected to rise to 46,100 by 2041. To support this projected population growth, the Local Plan will seek to deliver a minimum of 123 dwellings per annum and could seek to provide for approximately 3,520 new dwellings in Rutland over the period 2021 to 2041. The Local Plan is in the early stages of preparation and will be subject to public consultation before this requirement is finalised.
- 3.7. Given the rural nature and size of the county, the amount of planned construction is relatively small compared to other areas with few major construction projects planned. There are no national infrastructure projects planned for Rutland identified in the National Infrastructure Strategy or Levelling Up White Paper. However it is likely that some national infrastructure projects identified outside the county may be supported by mineral products from the county. Castle Cement Works in Ketton for example uses locally quarried limestone at Ketton Quarry to produce cement that is distributed nationally.
- 3.8. A degree of caution should be exercised when considering the correlation between demand for aggregate and level of house building. Between 2020 and 2022 for example crushed rock production in Rutland increased steadily year on year whilst the total number of house building completions during this period decreased. Conversely, when the number of house building completions began to increase steadily year on year between 2016 and 2018 the same was true for crushed rock sales.
- 3.9. A continued supply of crushed rock will be needed to support housing and infrastructure proposals in Rutland and potentially beyond the county if they come into fruition as planned. The level of construction however is not likely to be any greater in the future than experienced previously (including during periods of economic growth) and hence it is not necessary to factor in any additional growth to the provision rate.

Supply of crushed rock

Mineral commitments

- 3.10. At the end of 2020 Greetham Quarry had been fully worked and in February 2023 an application for a north-west extension to the site (with total crushed rock reserves of 3 Mt) was approved.
- 3.11. Woolfox Quarry has limited reserves remaining. The permission end date for the site was recently extended (to 2024) in order for the quarry to be fully worked. Clipsham Quarry has relatively large reserves remaining and in 2020 an application for a southern extension (with total crushed rock and building/walling stone reserves of 2.25 Mt) to be worked in conjunction with the existing site, was approved. It is uncertain when the inactive limestone permission at Thistleton Quarry will become active as it is dependant on the construction of a dedicated quarry haul road.
- 3.12. Due to the limited number of quarries in the county the total output of crushed rock can be significantly affected if just one site either ceases or significantly reduces production. For this reason, the situation will be closely monitored to make sure that maintaining historical annual output levels remains viable.

Commitments for producing secondary and recycled aggregate

3.13. Rutland has adequate capacity for the processing of waste to produce recycled aggregates, although this capacity is temporary. Apart from quarries, there are very limited opportunities for accomodating recycling sites in the county. This reflects the local distinctiveness of Rutland which is a predominantly rural county. There are few brownfield / industrial sites capable of accomodating any significant recycling operations or sites capable of yielding significant quantites of recycled aggregate. The most suitable locations will likely continue to be quarries but even here, potential is limited because of lack of available space to house significant recycling plant and stockpiling materials.

Resources and constraints

- 3.14. Minerals can only be extracted where they are found, as such, available resources are constrained in terms of where they can be acceptably worked. Limestone resources largely occur in the eastern half of the county and workings to date for crushed rock have been concentrated in the north-east of the county. Historically minerals have not been worked in the western half of the county due to the scarcity of workable mineral deposits here.
- 3.15. It is often easier and more viable to extend an existing site than to open a new quarry however with the concentration of crushed rock workings in the north-east it will be important to consider the potential cumulative impacts of any future workings in this area.
- 3.16. The crushed rock resources in the area are free of constraint from international environmental designations, however there are some national and local designations in this resource area to consider when assessing the suitablity of potential future sites. These include two Sites of Special Special Scientific Interest (SSSIs), a Local Wildlife Site (LWS), areas of ancient and semi-natural woodland and a Scheduled Monument.
- 3.17. Where potential adverse impacts do arise from extraction they need not automatically prevent development as such impacts may be able to be avoided and/or mitigated in order to reduce potentially adverse impacts to an acceptable level. Mineral extraction is a temporary activity and it may be possible for potential short term adverse impacts to be offset with longer term benefits. Site restoration for example can result in significant environmental, social and economic gain.

3.18.	An important site for biodiversity in Rutland is Rutland Water reservoir. It is an internationally designated wetland site designated as an EU Special Protection Area (SPA), SSSI, and Ramsar site with importance for wintering and passage wildfowl. It is not likely that the reservoir's designations will restrict crushed rock extraction as it is located away from the north-east. Any mineral planning application must consider the potential impacts on any European environmental designation as per the Conservation of Habitats and Species Regulations 2017 (as amended).

4. Summary and Conclusions

- 4.1. An adequate and steady supply of aggregate is required to meet the anticipated needs of the construction industry and support economic growth in Rutland. The NPPF requires MPAs to calculate annual aggregate provision on the basis of rolling 10-year average sales data and other relevant local information. Local information to consider includes:
 - Housing and construction levels,
 - Population growth,
 - · Current commitments and
 - Available resources and constraints.
- 4.2. The economic recession has had an impact on sales of crushed rock in Rutland but there are signs of recovery with sales increasing over recent years. There are indications of future growth in construction activity in Rutland, albeit on a relatively small scale, for which a continued supply of crushed rock will be needed. It is not likely that the demand for crushed rock in Rutland will be any greater than that experienced previously and as such it is not necessary to factor in any additional growth to a provision rate. There are no major infrastructure projects planned in the county that would result in a significant increase in demand for mineral resources.
- 4.3. During the preparation of this LAA, the UK economy was recovering from the Covid-19 virus pandemic. According to the Mineral Products Association: Regional overview of construction and mineral products markets in Great Britain 2023, output in the construction sector grew in early 2022 as the UK economy recovered from the Covid-19 virus pandemic, however unprecedented cost pressures, unusual weather conditions and possibility of a shallow economic recession in 2023, curbed demand for mineral products by the end of the year. Despite these issues, minerals sales from the two active quarries in Rutland bounced back in 2021/2022 and sales in 2022 saw a 22% increase in comparison to 2021.
- 4.4. The average aggregate sales for crushed rock for the most recent 10 year rolling period (2013 2022) is 0.28 Mtpa. There are sufficent remaining permitted reserves (as of 31/12/2022) to maintain the government required 10 year landbank.
- 4.5. There is no history of sand and gravel extraction in Rutland nor is there any current extraction. Therefore there will likely continue to be a reliance on imports in the future. Previously, an annual apportionment for sand and gravel has not been identified for Rutland and it is still not considered necessary. With a limited supply contribution, and no sales data availiable, it is not considered necessary, nor is it possible, to set an annual provision target for secondary and recycled aggregates.
- 4.6. Taking into account the sales trends and other factors described earlier, the provision figure to be used in 2022 for determining planning applications and calculating the landbank for crushed rock will be 0.28 Mtpa.
- 4.7. Consultation responses and feedback from the RLP Issues and Options document (produced in June 2022), together with this 2023 LAA, will assist in producing the RLP Draft Plan document (due to be out for consultation in autumn 2023).