



Rutland
County Council

**Local Aggregates
Assessment 2020
(Reporting on 2019 data)**

May 2021

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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 2020 edition and includes the most recent (2019) aggregate sales and reserves data for Rutland. The 10 year period covered by this LAA is 2010 to 2019. This LAA will form part of the evidence base to inform the Partial Review of Rutland's Minerals Core Strategy and Development Control Policies Development Plan Document as part of the Rutland Local Plan. The main facts and figures from the report (by aggregate type) are set out below:

Crushed rock (limestone)

- Rutland has four crushed rock quarries. Estimated reserves as of 31 December 2019 can not be published for confidentiality reasons.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%). Sales increased again in 2018 but decreased by 20% in 2019.
- In 2014 14.3 Mt of crushed rock was produced in the Leicestershire and Rutland sub-region of which 8.87 Mt (62%) was exported. 0.27 Mt of crushed rock was imported, leaving an export/import balance of -8.6 Mt; making the sub-region a significant net exporter. In 2014 72% of the crushed rock produced in Rutland was exported.
- The average crushed rock sales for the most recent 10 year rolling period (2010 – 2019) and most recent 3 year rolling period (2017 – 2019), are 0.23 million tonnes per annum (Mtpa) and 0.41 Mtpa respectively. The crushed rock provision rate in the emerging RLP is 0.19 Mtpa (based on the 10 year average sales 2004 – 2013). Under every provision rate there are sufficient permitted reserves (as of 31/12/2019) to maintain the government required 10 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 2014 imports of sand and gravel into the Leicestershire and Rutland sub-region totalled 1.41 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.

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 occurrence 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 2036. It presents the emerging Rutland Local Plan (RLP) provision rate and compares with provision rates based on the most recent 10 and 3 year average aggregate sales. It considers how local circumstances may impact on future aggregate supply and demand.
- 1.4. The LAA is part of the evidence base to inform the Review of Rutland's Minerals Core (MCS) and Development Control Policies Development Plan Document (DPD) as part of the emerging RLP.
- 1.5. The LAA is submitted to the East Midlands Aggregates Working Party (EMAWP), an advisory body made up of MPAs 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

- 1.6. In order to protect the commercial confidentiality of Leicestershire's two crushed rock (limestone) quarry operators it is not possible to publish annual sales or reserve figures for crushed rock quarries in Rutland. The EMAWP Annual Survey Report presents combined crushed rock (limestone) data for Rutland and Leicestershire to enable Leicestershire's data on igneous rock to be published separately. 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.

2. Aggregate supply and demand

Geology

- 2.1. 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).
- 2.2. 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

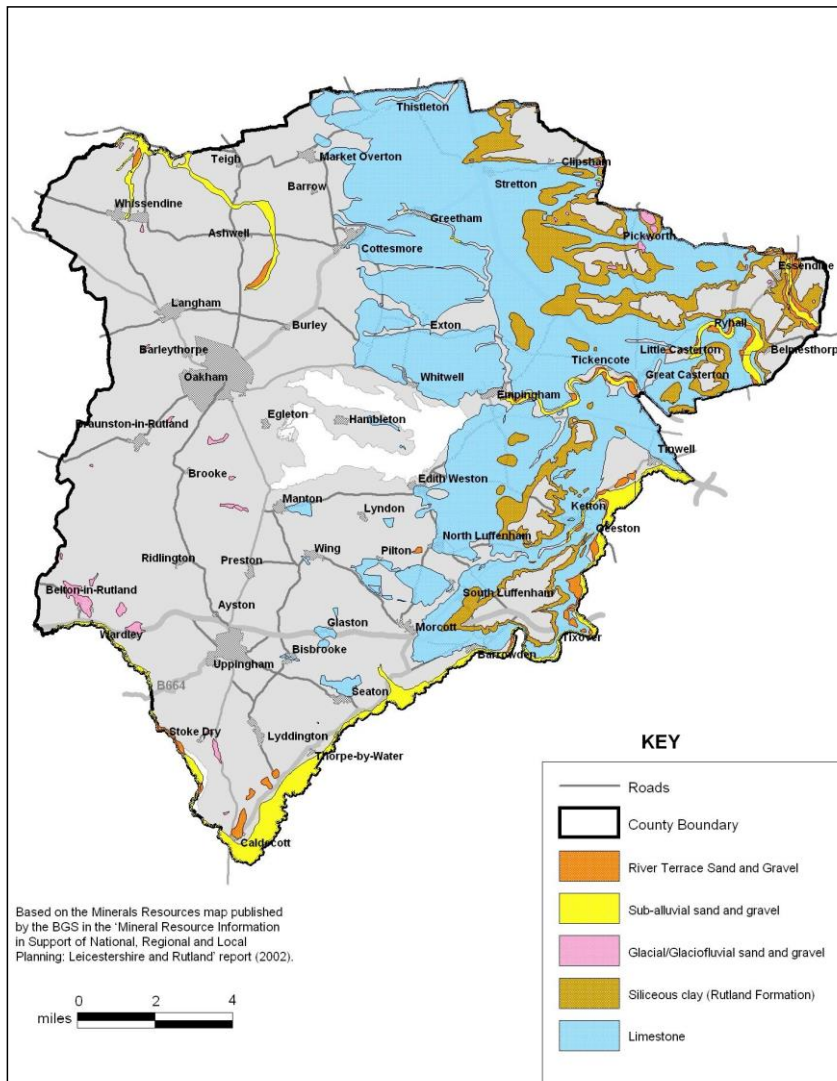


Figure 2: Geological map of mineral resources in Rutland

Limestone

Current supply

2.3. 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.

2.4. Rutland is relatively small in terms of mineral production although there are four 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 31/12/2019)

Map no.	Site	Operator	Status (as of 31/12/2019)	Permission end date
1	Clipsham Quarry	Clipsham Quarry Company	Active: Clipsham Quarry has permission for the extraction of 1.5 Mt of limestone*	2028
2	Greetham Quarry	Mick George Ltd	Active: Quarry has permission for the extraction of 1.2 Mt of limestone*	30/09/2020
3	Woolfox Quarry	Bullimores Sand & Gravel Ltd	Active: Quarry has permission for the extraction of 1.8 Mt of limestone	2024
4	Thistleton Quarry	East Midlands Quarries Ltd	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

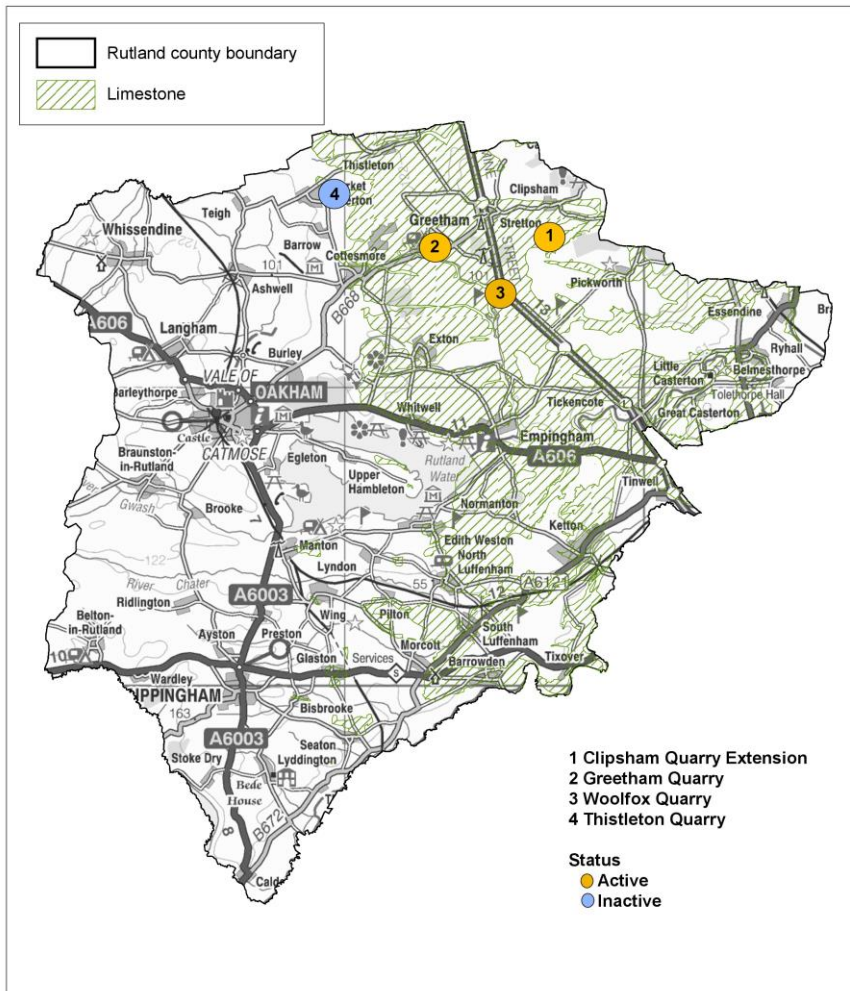


Figure 3: Geology of Rutland with permitted crushed rock sites

- 2.5. At the end of 2019 all quarries were active, with the exception of Thistleton. Lincolnshire limestone is extracted from Clipsham Quarry (Clipsham), Greetham Quarry (Greetham) and Woolfox Quarry (Greetham) within the north-eastern part of the county, close to the border with Lincolnshire.
- 2.6. 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.

- 2.7. Estimated crushed rock reserves in the county as of 31 December 2019 can not be published for confidentiality reasons. The reserve data was retrieved from the 2019 Aggregate Minerals (AM) survey returns, the latest data available at time of writing. For one of the sites, reserves were estimated based on information obtained from a recent planning application.
- 2.8. 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

- 2.9. To protect commercial confidentiality sales figures cannot be identified; however the general trend of sales for the 10 year period 2010 - 2019 is shown in Figure 4. Sales figures are shown up to the end of 2019 as this is the most recent data available. The 2019 sales figure is based on data retrieved from the AM survey returns and in one case, data estimated by the MPA.

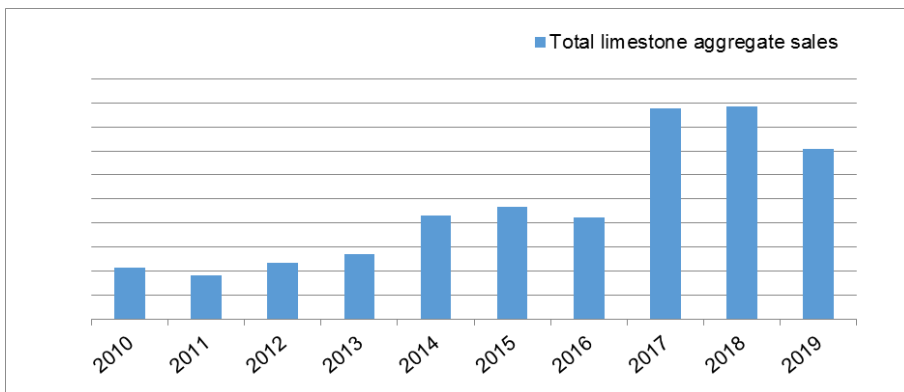


Figure 4: The trend of crushed rock sales in Rutland (2010 – 2019)

- 2.10. 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 2019 sales decreased by 20%.
- 2.11. 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 were lower in 2019 than 2018, this may in part be due to the reserves of one site nearing exhaustion.

Imports and exports

- 2.12. A national Aggregate Monitoring (AM) survey is conducted by the Department of Communities and Local Government (DCLG) 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 however results are yet to be published. AM surveys prior to this were undertaken in 2014 and 2009.

- 2.13. Imports data for Rutland is combined with Leicestershire as one sub-region however sales data is presented separately. Results of the 2014 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.
- 2.14. Imports of crushed rock into the sub-region totalled 0.27 Mt, leaving an export/import balance of -8.6 Mt (Table 2).

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

Total sales	Imports: Leicestershire and Rutland sub-region	Exports: Leicestershire and Rutland sub-region	Balance
14.3 Mt Leicestershire and Rutland sub-region (0.21 Mt Rutland)	0.27	8.87	-8.6

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 (Table 9e: Sales of primary aggregates by MPA and principal destination sub-region, and Table 10: Imports of primary aggregates by sub-region).

- 2.15. Crushed rock produced within the Leicestershire and Rutland sub-region in 2014 totalled 14.3 Mt of which over a third (around 5.5 Mt) remained within the sub-region. Exports from the sub-region totalled 8.87 Mt (62% of the total produced) with 1.98 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 (28%).
- 2.16. Results from the earlier 2009 AM survey showed that the sub-region was, not surprisingly, also a significant net exporter at that time with 0.2 Mt imported and 7.9 Mt exported (67% of the total produced).

Table 3: Destination of crushed rock produced in Leicestershire and Rutland 2014

Destination	Million tonnes
Leicestershire and Rutland	5.48
Derbyshire and Peak District National Park	0.31
Nottinghamshire	0.77
Lincolnshire	0.19
Northamptonshire	0.68
Unknown in East Midlands	0.01
Total East Midlands	7.46
North West	0.32
Yorkshire and Humber	0.55
West Midlands	1.49
East of England	2.5
London	0.89
South East	0.79
Elsewhere	0.33
Total outside East Midlands	6.89
Total crushed rock produced	14.3
Total exports East Midlands (excluding sub-regional flows within Leicestershire and Rutland)	1.98
Total exports UK (excluding sub-regional flows within Leicestershire and Rutland)	8.87

Source: Aggregate Minerals Survey 2014 and Collation of the results of the 2014 Aggregate Minerals survey for England and Wales 2014 report.

2.17. Specific to Rutland, of the crushed rock produced in 2014 most was used within the sub-region (28%) or exported to Northamptonshire (26%). The remaining exports were either to other areas within the East Midlands (21%) or to the East of England (25%), as shown in Table 4.

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

Destination	Percentage of crushed rock (limestone) in 2014	Percentage of crushed rock (limestone) in 2018
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%	-

2.18. As part of the 2019 AM survey, additional information on minerals movements was also sought. It should be noted that this information has been obtained by some, but not all, AWP's and is not part of a national survey. Results show 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.

2.19. As part of the production of the RLP, and in accordance with the Duty to Co-operate, authorities known to have supplied the Leicestershire and Rutland sub-region with crushed rock in the past were contacted to identify whether there were any strategic cross-boundary matters or constraints that could affect the continued supply in the future. Of those authorities who responded, and supplied <1% of crushed rock to the Leicestershire and Rutland sub-region in 2014, the majority did not anticipate any

future supply issues. A significant amount of crushed rock (90 – 100%) was distributed within the Leicestershire and Rutland sub-region in 2014. Leicestershire do not anticipate any future supply issues of crushed rock in the immediate future.

Supply and sales

2.20. 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

2.21. Rutland does not produce sand and gravel and as such is a net importer. The 2014 AM survey identifies that imports of sand and gravel into the Leicestershire and Rutland sub-region totalled 0.573 Mt.

2.22. As part of the production of the RLP, and in accordance with the Duty to Co-operate, authorities known to have supplied the Leicestershire and Rutland sub-region with sand and gravel in the past were contacted to identify whether there were any strategic cross-boundary matters or constraints that could affect the continued supply in the future. Of those authorities supplying <20% of sand and gravel to the Leicestershire and Rutland sub-region in 2014, none anticipated any future supply issues. Around 50 - 60% of sand and gravel was distributed within the Leicestershire and Rutland sub-region in 2014 however there is a degree of uncertainty regarding future supplies from Leicestershire, a situation which will require monitoring due to Rutland's reliance on sand and gravel imports.

Ironstone

2.23. 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

2.24. 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

2.25. 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).

2.26. 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.

- 2.27. As reported in the Draft EMAMP Annual Monitoring Report (2018) (the latest report available), there were a number of years of increased local activity in the recycled and secondary aggregate sector in the East Midlands. The slowing down of new applications in the East Midlands first reported in 2004 steadied around 2008 with few new applications coming forward. However application numbers have increased in recent years with existing sites continuing to operate. The best available data for recycled and secondary aggregates is that provided through the Environment Agency's Waste Data Interrogator (WDI). Data for 2019 shows that 4,517 t of CD&E waste was produced, and 62,733 t was managed, in Rutland.
- 2.28. In 2019 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 Quarry, Greetham	Bullimores Sand and Gravel Ltd	Active	2024 (associated with end life of quarry operations)	109,500 of inert waste including soils, wood and construction waste

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

3. Future aggregate supply

Aggregate provision

- 3.1. 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.
- 3.2. 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.
- 3.3. Government Planning Practice Guidance for Minerals (DCLG, 2014 – paragraph 64) states that MPAs should also look at the average 3 year sales to identify the general trend of demand and whether it may be appropriate to increase supply.

Crushed rock

- 3.4. Table 6 presents the total crushed rock sales in Rutland during the 10 year period 2010 – 2019 and shows the 10 year average sales for the period 2010 – 2019, 3 year average sales for the period 2017 - 2019 and the emerging RLP provision rate (based on 10 year average sales for the period 2004 – 2013).

Table 6: Total crushed rock sales in Rutland 2010 – 2019

Year	Limestone (Mt)
2010	c
2011	c
2012	c
2013	c
2014	c
2015	c
2016	c
2017	c
2018	c
2019	c
Total sales 2010 – 2019	2.3
10 year average 2010 – 2019	0.23
3 year average 2017 – 2019	0.41
Emerging RLP provision rate	0.19

'c' confidential

- 3.5. The average sales for the 10 year period (2010 - 2019) is 0.23 Mtpa and the average sales for the 3 year period (2017 – 2019) is 0.41 Mtpa.
- 3.6. Table 7 compares the provision of limestone for the 17 year plan period from 2019 to 2036 (the remaining plan period of the emerging RLP) based on alternative apportionment / provision rates, including the emerging RLP provision rate.

Table 7: Provision of crushed rock in Rutland to 2036 based on alternative apportionment / provision rates

	Adopted MCS apportionment rate (2010)*	Emerging Rutland Local Plan provision rate**	10 year average sales provision rate (2010 – 2019)	3 year average sales provision rate (2017 – 2019)
Annual apportionment / provision rate (Mtpa)	0.30	0.19	0.23	0.41
Total plan requirement (Mt): Annual apportionment / provision rate x plan period 17 years (remaining plan period 2019 - 2036)	5.1	3.2	3.9	6.9
Remaining permitted reserves (as at 31/12/19)	Confidential	Confidential	Confidential	Confidential
Undersupply (-) over supply (+) (rounded to the nearest Mt)	+4	+6	+6	+3

Commented [LK1]: 9.44 Mt

*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.

**Based on 10 year average sales (2004 - 2013).

- 3.7. Comparison of total plan requirements, under each apportionment / provision rate with permitted reserves remaining at 31 December 2019, indicates that with every rate there are enough remaining reserves in Rutland to meet a 17 year remaining plan requirement.
- 3.8. The large inactive quarry at Thistleton (with reserves of 6.4 Mt) comprises the majority of the remaining permitted reserves. As its operation is dependent on the construction of a dedicated haul road there is no guarantee that the site will become active during the plan period. To address this eventuality and potential supply issues the emerging RLP allocates one potential site for crushed rock extraction (Table 8).

Table 8: Site allocated in the emerging RLP for crushed rock extraction

Allocated site	Approximate resources
M4a Greetham Quarry North West extension	1.1 Mt to 2036 (2.4 Mt thereafter)

- 3.9. If Greetham Quarry North West extension site comes forward (with a 1.1 Mt supply during the plan period), in addition to the current commitments (excluding Thistleton Quarry) there would be an oversupply of crushed rock, under the emerging RLP provision rate.

Sand and gravel

- 3.10. 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

- 3.11. 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. Through the plan, policies will support the production of secondary and recycled aggregates as alternatives to primary aggregates.

Landbanks

3.12. 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 2019 are shown in Table 9. Under the emerging RLP provision rate and the other apportionment/provision rates the landbank is significantly higher than the 10 year level.

Table 9: Landbanks for crushed rock in Rutland in 2019

	Adopted MCS apportionment rate (2010)*	Emerging Rutland Local Plan provision rate**	10 year average sales provision rate (2009 – 2018)	3 year average sales provision rate (2016 – 2018)
Annual provision rate (Mtpa)	0.30	0.19	0.23	0.41
Permitted reserves (as at 31/12/19) Mt	<i>Confidential</i>	<i>Confidential</i>	<i>Confidential</i>	<i>Confidential</i>
Landbanks (rounded to full years)	32	50	41	23

*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.

**Based on 10 year average sales (2004 - 2013).

4. Consideration of local circumstance

- 4.1. 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.
- 4.2. 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

- 4.3. 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.
- 4.4. 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 2009/10 and 2018/19. Between 2009/10 and 2012/13 net housing completions generally stayed the around the same level (with the exception of 2011/12). Since 2013/14 the number of completions generally increased annually, indicating a growth in construction activity in the county and recovery from the economic recession. However, in 2018/19 there were only 211 completions, an decrease of 17% compared with the previous year.

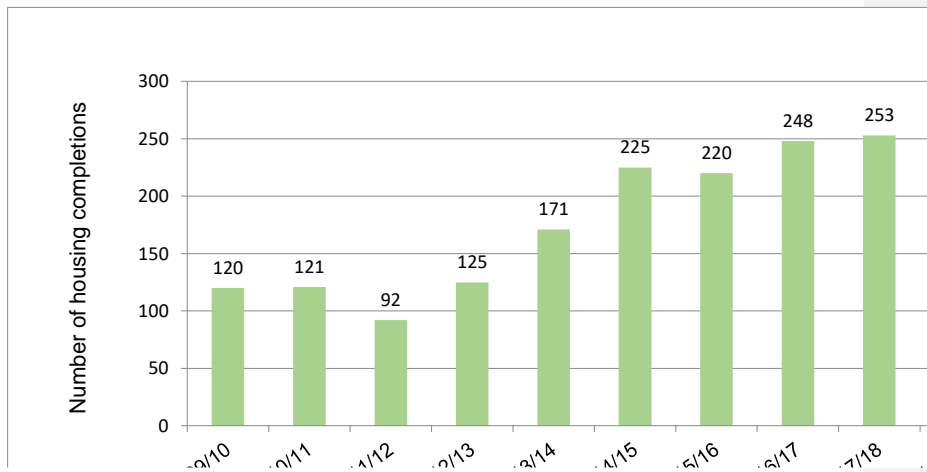


Figure 5: Net housing completions in Rutland 2009/10 – 2018/19

- 4.5. The economic downturn saw a decrease in the rate of house building across Rutland, resulting in fewer housing completions compared to Housing Trajectory targets. For most years between 2006/07 and 2017/18, when the annual Housing Trajectory target was 150 dwellings, the number of housing completions were lower than the target. In 2017/18, and for the 4 years prior however, the number of completions were above the annual target as the housing market has picked up. The emerging RLP has a plan period of 1st April 2018 to 31st March 2036 (18 years) and has a reduced Housing

Trajectory target of 130 dwellings per annum, in 2018/19 housing completions were 62% above this target.

- 4.6. 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 39,474 (ONS 2017). The population is projected to rise to 40,880 by 2036. To support this projected population growth there is a requirement for approximately 2,340 new dwellings in Rutland to be provided in the plan period.
- 4.7. 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 Delivery Plan (NIDP) 2016 - 2021. However it is likely that some NIDP 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.
- 4.8. The emerging RLP allocates a number of sites for new housing to meet requirements to 2036. They include sites to accommodate around 3,82 dwellings in Oakham, 1,000 dwellings at St George's Barracks, North Luffenham, and 200 dwellings in Uppingham. As of 2019, 9% of the 2,340 total dwellings required in the county have been built. In addition, land in Rutland located on the edge of Stamford, Lincolnshire, is considered suitable for development as part of an urban extension in Stamford and will contribute to South Kesteven District Council housing need.
- 4.9. A degree of caution should be exercised when considering the correlation between demand for aggregate and level of house building. Between 2007 and 2008 for example crushed rock production was relatively high in Rutland whilst the total number of house building completions during this period was relatively low. Conversely, when the number of house building completions began to increase steadily year on year between 2011 and 2014 the same was true for crushed rock sales.
- 4.10. 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 / allocation

- 4.11. At the end of 2019 Greetham Quarry had limited reserves remaining, however in 2020 an application for a north-west extension to the site (with total crushed rock reserves of 3 Mt) was submitted and is yet to be determined. The site is also identified as a potential allocation in the emerging RLP.
- 4.12. Woolfox Quarry has slightly more reserves remaining than Greetham Quarry. 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.
- 4.13. 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. It should be noted that during the preparation of this LAA the Covid-19 virus pandemic affected the global economy and is likely to have had some effect on sales in 2020. It is difficult to determine the impacts of the pandemic until the 2020 sales data becomes available. A more informed assessment can be made in the following 2021 LAA.

Commitments for producing secondary and recycled aggregate

- 4.14. 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

- 4.15. 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. The spatial strategy in the emerging RLP identifies this broad area in the north-east for future crushed rock extraction. Historically minerals have not been worked in the western half of the county due to the scarcity of workable mineral deposits here.
- 4.16. 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.
- 4.17. 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 suitability of potential future sites. These include two Sites of Special Scientific Interest (SSSIs), a Local Wildlife Site (LWS), areas of ancient and semi-natural woodland and a Scheduled Monument.

- 4.18. 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.
- 4.19. 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 2010.

5. Summary and Conclusions

- 5.1. 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 allocations, and
 - Available resources and constraints.
- 5.2. 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.
- 5.3. The average aggregate sales for crushed rock for the most recent 10 year rolling period (2010 - 2019) is 0.23 Mtpa. The crushed rock provision rate currently being taken forward in the emerging RLP is 0.19 Mtpa. There are sufficient remaining permitted reserves (as of 31/12/2019) to maintain the government required 10 year landbank.
- 5.4. 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; however its role should be recognised through the plan with policies supporting sites coming forward. Likewise, through the plan, policies will support the production of secondary and recycled aggregates as alternatives to primary aggregates. With a limited supply contribution, and no sales data available, it is not considered necessary, nor is it possible, to set an annual provision target for secondary and recycled aggregates.
- 5.5. The LAA will be reviewed annually and revised as necessary as part of the monitoring of the emerging RLP. The provision rate and landbank will be kept under review. If trends identified through the LAA for example indicate that the average crushed rock sales over a 10 year period are consistently (over a three year period) different (+/- 20%) to the adopted provision rate, or the landbank falls below the 10 year target for more than two years, there will be a trigger point for correction and or/mitigation measures will be implemented.
- 5.6. The RLP Issues and Options document (produced in November 2015) considered the evidence presented in the 2014 LAA (the latest LAA available at time of writing) in identifying the strategic options for consultation. Consultation responses and feedback together with the subsequent 2015 and 2016 LAAs, assisted in producing the RLP Preferred Options (Draft Plan) document (consulted on in August/September 2017). The previous 2017, 2018 and 2019 LAAs and this 2020 LAA, together with consultation responses and feedback from the Draft Plan and Proposed Submission Plan, will assist in taking the plan forward to its next (Submission) stage. Production of the Proposed Submission document was delayed due to an additional consultation on St George's Barracks, the former RAF site, which had been rationalised and considered for mixed use development in the future.

- 5.7. Taking into account the sales trends and other factors described earlier, the provision figure to be used in 2020 for determining planning applications and calculating the landbank for crushed rock will be 0.19 Mtpa. This figure is the same as in the emerging RLP.