LOCAL AGGREGATE ASSESSMENT 2022

DERBYSHIRE COUNTY COUNCIL, DERBY CITY COUNCIL AND THE PEAK DISTRICT NATIONAL PARK AUTHORITY

Data covering the period 01/01/2021 to 31/12/2021

1951-2021 70 PEAK DISTRICT NATIONAL PARK

Derby City Council

DERBYSHIRE County Council

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SUMMARY

The National Planning Policy Framework (NPPF) requires Mineral Planning Authorities (MPAs) 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 LAA is the 2022 edition and includes the 2021 aggregate sales and reserves data for Derbyshire, Derby and the Peak District National Park. The ten-year period covered by this LAA is 2012 to 2021. The main facts and figures from the report (by aggregate type) are set out below.

Sand and Gravel

- Derbyshire is an important producer of sand and gravel and has a large export market, particularly the wider East Midlands.
- Derbyshire has four permitted sand and gravel quarries, three in the river valleys and one in the Sherwood Sandstones, producing 0.99 million tonnes in 2021. The total reserves for these sites, as of 31 December 2021, is around 9.43 million tonnes (Mt).
- Sand and gravel sales fell slightly to 2013 before making a good recovery to 2016. Production has fluctuated since then with 2020 sales being hit by the COVID pandemic and issues with flooding along the River Trent, before recovering again in 2021 to pre-pandemic levels.
- In 2019 (the most recent figures available) 0.335 Mt of sand and gravel was produced in Derbyshire was exported (43%). 2019 figures (the most recent for this dataset) 0.52 Mt of sand and gravel was imported, making the county a net exporter.
- The average aggregate sales for sand and gravel for the most recent ten-year period (2012–2021) and three-year period (2019–2021), are 0.93 million tonnes per annum (Mtpa) and 0.78 Mtpa respectively. The sand and gravel provision rate is set at 0.93 Mtpa. Based on this provision rate, there are sufficient permitted reserves to maintain supply for over ten years, more than

the government required seven-year landbank. Additional reserves will, however, have to be identified in the Minerals Local Plan to maintain supply over the Plan period to 2038.

Crushed Rock for Aggregate

- Derbyshire and the Peak District National Park are important producers of aggregate crushed rock, with the product being exported over a large area of the UK.
- Derbyshire and the Peak District have 26 permitted crushed rock (limestone, and sandstone) quarries, 19 of which are currently operational. These produced 12.27mt of aggregate grade crushed rock in 2021. The total reserves of aggregate crushed rock at these operational sites, at 31 December 2021, is around 506.8 mt. Reserves of aggregate at the 7 currently non-operational sites are 252.3mt.
- Production of aggregate increased progressively in the PDNP from 2011 to 2016 but has declined since then. In Derbyshire, production of aggregate crushed rock dropped progressively from 2011 to 2014, with a significant drop in production in 2014 before recovering to some extent in 2015 and with a significant recovery from 2016 to 2019 before falling again in 2020 and recovering to pre-pandemic levels in 2021.
- In 2019 (the most recent figures available) 66% (8.2mt) of crushed rock which was produced in Derbyshire and the Peak District was exported to other areas, the main destinations being the North West, West Midlands and Yorkshire/Humber regions. In 2019 (the most recent full survey for which data on imports has been published), Derbyshire and the Peak District imported 456,000 tonnes of aggregate grade crushed rock, the majority of which was imported from Leicestershire/Rutland. The area is therefore a significant exporter of aggregate crushed rock to the majority of regions in the UK.
- Average aggregate sales for crushed rock for the most recent ten-year period (2012–2021) and three-year period (2019–2021), are 10.46 Mtpa and 11.81 Mtpa respectively. The provision rate is set at 11.81mtpa (8.85mtpa for Derbyshire and 2.96mtpa for the PDNP). The proposed figure for Derbyshire allows for the continued compensation for the progressive loss of production

from the PDNP. Based on this provision rate there are sufficient permitted reserves to maintain production for over 65 years, more than the government required minimum ten-year landbank.

Secondary and Recycled Aggregate

- It is estimated that from 2021 to 2038, Derby and Derbyshire will produce around 3 million tonnes of recycled aggregate on an annual basis.

Table 1. Summary sales figures for the period 01/01/2021 – 31/12/2021

Aggregate	Sales in 2021 (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 2021 (million tonnes)	Change in permitted reserves from previous year	Landbank (years)	Change in Landbank from previous years
Land won Sand and Gravel	0.99	↑	0.93	0.78	↓	0.93	9.34	↓	10.1	↓
Crushed Rock	13.07	↑	10.46	11.81	↑	11.81	759.1	↑	65	↑
Marine sand and gravel	nil									
Total Primary Aggregates	14.06	↑	11.39	12.59	↑					
Secondary Aggregates	No data available	No data available	No data available	No data available	No data available	No data available	No data available	No data available	No data available	No data available
Recycled Aggregates	No data available	No data available	No data available	No data available	No data available	No data available	No data available	No data available	No data available	No data available

1. INTRODUCTION

Minerals are important to the local and national economy and play an important part in our everyday lives. They have many uses, including material for construction and for a wide variety of industrial and commercial purposes, including the manufacture of paint, paper and toothpaste. The planning system must ensure that sites are available to provide a steady and adequate supply of minerals for these industries.

Aggregate minerals are those that are used by the construction industry, for example in road making, house construction, in the manufacture of concrete and as railway ballast. They include limestone, sandstone and sand & gravel. It is the future provision of these minerals with which this assessment is concerned.

Background

The National Planning Policy Framework (NPPF) requires Mineral Planning Authorities (MPAs) to plan for a steady and adequate supply of aggregates by determining provision through the preparation an annual Local Aggregate Assessment (LAA). It sets out that this should be prepared either individually or jointly by agreement with another or other mineral planning authorities, based on a rolling average of 10 years sales data and other relevant local information, and an assessment of all supply options (including marine dredged, secondary and recycled sources). It is advised also that published National and Sub National Guidelines on future provision should also be taken into account. National Planning Practice Guidance elaborates further, setting out that it should also assess 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 surplus of supply and, if it is the former, how this will be addressed.

It also seeks to ensure that, as far as is practical, landbanks of non-energy minerals should be maintained in locations outside National Parks, Areas of Outstanding Natural Beauty (AONBs), World Heritage Sites, Scheduled Monuments and Conservation Areas. As a result, future contributions of aggregate from areas covered

by these designations, including the Peak District National Park, will need to be considered in light of this.

Guidance on the preparation of LAAs[1] reinforces the above policy requirements, and sets out also that MPAs should look at the average 3 year sales in particular, to identify the general trend of demand as part of the consideration of whether it might be appropriate to increase mineral supply.

Derbyshire County Council, Derby City Council and the Peak District National Park Authority (PDNPA) have agreed to undertake a joint Local Aggregate Assessment. Government Guidance on preparing LAAs suggests that joint LAAs may be prepared where joint planning is taking place. Justification for the preparation of a LAA on a joint basis between Derbyshire and the PDNPA lies in the known interactions in terms of aggregates production and consumption within this area and the perceived benefits of closer cooperation on minerals planning within the area.

This assessment sets out the current and future situation in Derbyshire, Derby and the PDNP with regard to all aspects of aggregate supply, in particular, setting out the amount of land-won aggregate that the area will need to provide. It follows the Practice Guidance on the Production and Use of Local Aggregate Assessments produced by the Planning Officers Society and Mineral Products Association.

Derby does not produce any crushed rock or sand and gravel, but it is an important consumer of these minerals. **Unless otherwise stated, data on Derbyshire, including sales and movements of aggregate, incorporates information on Derby City.**

The LAA is submitted to the Aggregates Working Party (AWP), an advisory body made up of MPAs and mineral operators across the region, for consideration and scrutiny. The AWP has a role to monitor the operation of the LAA system through providing technical advice, particularly on the apportionment of aggregate supply provision.

[1] Practice Guidance on the Production and Use of Local Aggregate Assessments; Planning Officers Society and Mineral Products Association (May 2017).

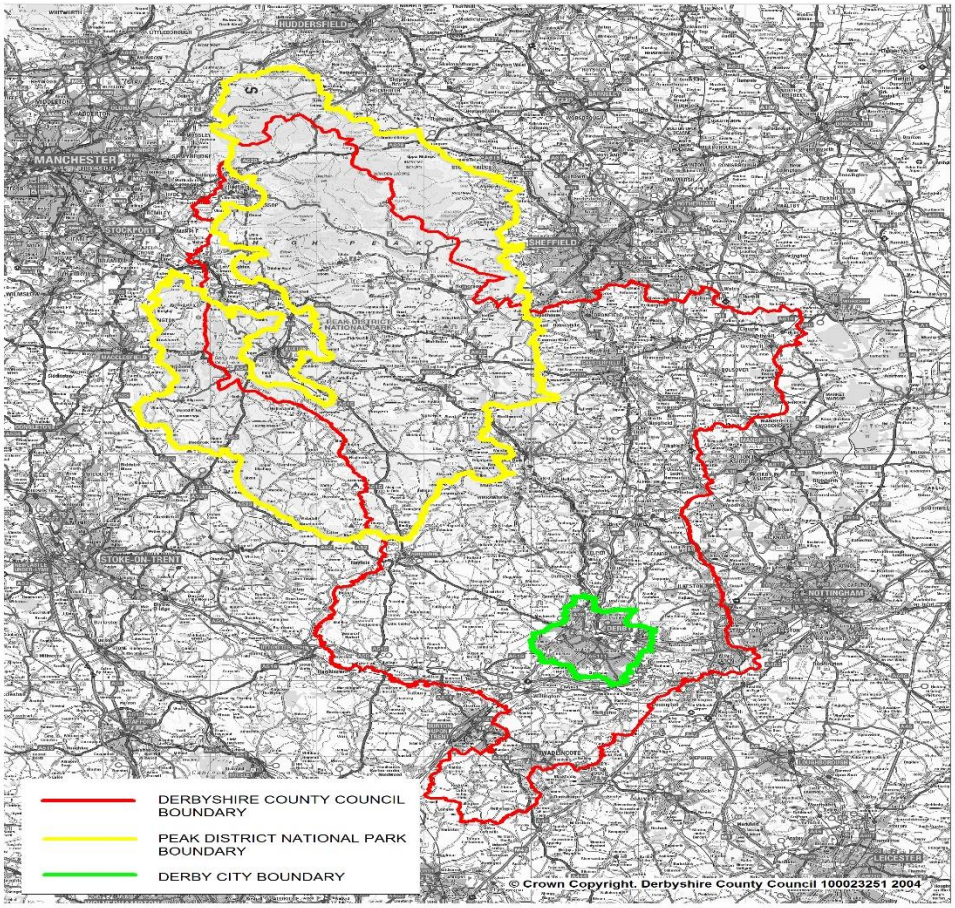
The work of MPAs and AWPs across the country will be overseen by a National Aggregate Co-ordinating Group (NACG), the main role of which will be to monitor the overall provision of aggregates in England and provide advice to AWPs and the Government.

The latest survey information is from the calendar year 2021, and it is these figures on which this assessment is based. This information will continue to be updated on an annual basis.

Spatial Context

Derbyshire and the Peak District National Park are situated in the central part of England, mostly within the East Midlands region. The large conurbations of Nottingham, Sheffield, the North West and the West Midlands lie in close proximity to the area.

Figure 1: Derbyshire, Derby and the Peak District National Park



Derbyshire and Derby have a population of around 1,018,400[2]. The majority of the population of Derbyshire and Derby lives in urban areas, with around three quarters living in settlements in the eastern half of the county. The largest settlements are Derby in the south and Chesterfield in the north. There are around 430,000 households in Derbyshire and Derby. By 2031, it is estimated that the population of the area will have increased to 1,149,460, an increase of 11%. It is estimated that there will be a further 96,000 households by 2031, the largest increases expected to be in Derby, Amber Valley and South Derbyshire. This population growth, in turn, will create the need for further employment opportunities and improvements in infrastructure.

[2] 2011 Census and includes the area of Derbyshire within the Peak District which is around 30,000 (around 7,000 people live in the area of the National Park outside Derbyshire)

As such, it is crucial that Derby City and Derbyshire County Councils and the PDNPA, as the MPAs for the area, are able to ensure a steady and adequate supply of mineral to realise these growth aims and to maintain the infrastructure already developed.

Mineral supply from the area is of national significance, supplying a significant amount of aggregate to a large part of the country, particularly crushed rock for aggregate. As a result, this need to maintain a steady and adequate supply of mineral applies also to this much wider area.

National and Sub National Aggregate Guidelines

The Government produced the 2005-2020 aggregate guidelines in 2009. The East Midlands Aggregates Working Party (EMAWP) used these figures to provide the Region's MPAs with their aggregate apportionments for this period.

These sub regional (i.e. county level) figures were considered and endorsed by the East Midlands Regional Assembly in 2010. They would then have been incorporated into the Regional Plan through the partial review process. However, with the abolition of the Regional Assemblies in March 2010, the revised Regional Plan did not progress, so the figures have not been tested through public examination and not included in any Plan.

At the meeting of the East Midlands AWP in February 2013, it was agreed that these figures were based on information which is now out of date, as they were only based on aggregate output from a period of economic growth, and should, therefore, not be taken into account when determining the new provision figures.

It was agreed by all members of the group, therefore, to base the new apportionment figure on the 10-year average of sales and to consider any flexibility in this figure, taking account primarily of local circumstances, particularly future economic growth.

2. AGGREGATE RESOURCES

Primary Aggregates

The geology of Derbyshire, Derby and the Peak District National Park gives rise to the following commercially viable primary aggregate deposits:

- Hard rock, including limestone and sandstone/gritstone
- Alluvial sand and gravel (river valleys)
- Sherwood Sandstones

For centuries, the rich geology of Derbyshire, Derby and the Peak District National Park has encouraged the search for workable minerals. **The principal sources of Limestones and Sandstones/Gritstones** were formed during the Carboniferous, Permian and Triassic Periods, between 354 and 200 million years ago. Most of the National Park and the northern part of Derbyshire is underlain by limestone and gritstone from the Carboniferous period.

The principal sources of Carboniferous limestones, which are worked in Derbyshire and the Peak District National Park are found mainly in an area which stretches from Buxton, in a south easterly direction through the southern half of the National Park, towards the Matlock and Wirksworth/Cromford area. This rock provides a valuable and important raw material which is used in crushed form, both as high grade aggregate for concrete making and roadstone (where the physical properties of certain deposits are important) and for industrial purposes (as a result of the chemical composition of certain deposits).

The Permian Limestone was formed slightly more recently, around 250 million years ago. This is found and worked in the north east of the county, in the area around Bolsover and Whitwell in the north east of the county. In terms of its use for aggregates, it is a lower grade material than the Carboniferous Limestone and is used principally as constructional fill. The specific chemical content of the resource in certain areas, particularly around Whitwell, makes it an important raw material for high quality industrial products.

Whilst total resources of sandstone and gritstone within Derbyshire and the Peak District National Park are large, the quantity and, in particular, the quality of the limestone in the area means that the focus for aggregate production is on limestone rather than sandstone and gritstone. Relatively small amounts of sandstone/gritstone are quarried for aggregate in the north west of the area, around Glossop and Hayfield. The more extensive use of this mineral is for building stone.

The river valley sand and gravels were laid down much more recently, at the end of the last ice age (around 14,000 years ago).
Derbyshire has substantial resources of sand and gravel in the river valleys of the Trent, Lower Derwent and Lower Dove, occurring within the fluvial/alluvial and terrace deposits, as shown on Figure 2 below. The thickness of the river valley deposits varies considerably, ranging from less than one metre thickness in some areas to eight or nine metres thick in other areas. The gravel content of the deposits is usually high (50%-70%), the remainder being sand and fine silts. The majority of working to date has taken place in the Trent and the Lower Derwent Valleys, with reserves being of particularly high quality in the area of the Trent Valley between Long Eaton and Willington.

Deposits of sand and gravel also occur in the solid bedrock of the **Sherwood Sandstones**. These are much older than the river valley deposits, having been laid down around 230 million years ago in the Triassic period. Their thickness varies considerably from 100m to virtually nothing. The proportion of gravel to sand varies greatly but is usually much less than in the river valley deposits. It is a source of soft building sand and also sharp sand for concrete. There is currently only one operation in the county. This is located at Mercaston in an area between Derby and Ashbourne.

Derby City has only limited mineral resources. There is no hard rock and only a small amount of sand and gravel.

Secondary and Recycled Aggregates

Along with primary aggregate, described as being minerals which are extracted directly from the ground, there are also secondary and recycled aggregates, the use

of which can help to reduce the need for primary aggregates. Recycled aggregates are those derived mainly from construction and demolition projects. Examples include the re-use of brick and concrete, being reprocessed to be used in new developments, rather than being disposed of in a landfill site. This often takes place using mobile plants on redevelopment sites. Secondary aggregates are created as a by-product of a construction or industrial process. Examples include power station ash resulting from combustion, which can be used in the production of bricks and cement.

The benefits of maximising the use of both secondary and recycled aggregate are two-fold. Firstly, the use of these aggregates reduces the need to extract primary material in the first instance, leading to a reduction in the need for new quarries. Secondly, the re-use of material reduces the amount of waste that needs to be disposed of, thereby reducing the need for landfill sites. Such a reduction in the need for quarry and landfill sites has clear environmental and social benefits.

3. ASSESSMENT OF LOCAL RESOURCES, RESERVES AND PRODUCTION

Sand & Gravel

Resources and Reserves

Sand and gravel resources of glacio-fluvial origin are concentrated along the river valleys in the south of the county, the most important being the Trent Valley to the south of Derby, as well as the adjoining river valleys of the Lower Derwent and Dove. Currently, the mineral is only worked in the Trent Valley in Derbyshire. Deposits of sand and gravel also occur in the solid bedrock of the Sherwood Sandstones. There are no resources of sand and gravel in the Peak District National Park.

In 2020, there were four operational operations producing sand and gravel; three along the Trent Valley (Glacio-fluvial deposits) and one at Mercaston (Sherwood Sandstone). One site (Elvaston) remains non-operational. Returns from the mineral operators show that the landbank is spread fairly evenly amongst the sites. It is clear from the information in Table 1 below that the current sites will not sustain production over the full course of the Plan period to 2038. Further sites have been identified through work on the emerging Minerals Local Plan and will be brought forward to sustain production over this time to ensure that the agreed annual requirement continues to be met.

Table 2: Permitted Sand and Gravel Quarries in Derbyshire

Quarry	Operator	Status/End date
Swarkestone	Tarmac	Operational. Estimated lifespan 7 years to 2029
Shardlow	Hanson	Operational. Estimated lifespan 8 years to 2030.
Willington	Cemex	Operational. Estimated lifespan 2 years to 2024

Mercaston	Hanson	Operational. Estimated lifespan, over 20 years
Elvaston	Tarmac	Not currently being worked. Permission granted in 2013 for an extension.

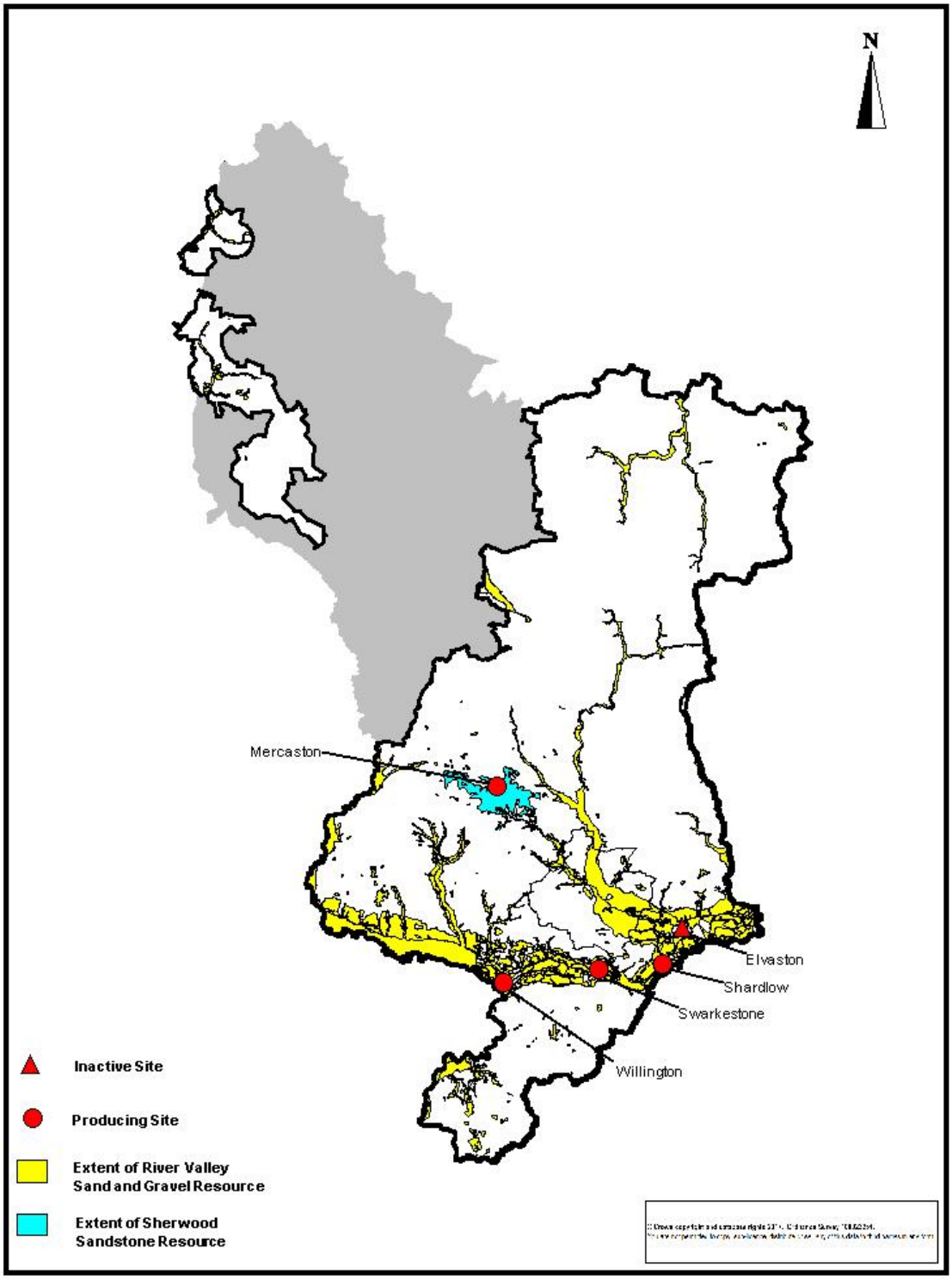


Figure 2: Sand and Gravel Resources in Derbyshire with Sand and Gravel Sites

At the end of 2021, estimated permitted reserves of sand and gravel in Derby and Derbyshire from the above quarries amounted to around 9.43 million tonnes.

This stock of reserves with planning permission is known as the landbank. The landbank includes operational quarries and also non-operational quarries but only those which have valid conditions for working. Government policy requires landbanks to be maintained for all aggregate minerals, with the landbank for sand and gravel required to be at least 7 years. The length of the landbank for sand and gravel in Derbyshire at the end of 2021 (using the proposed provision figure) is calculated as follows:

Landbank of permissions	=	9.43 million tonnes
Annual Provision rate	=	0.93 million tonnes
Landbank period	=	10.1 years

Recent Production

Sales of primary sand and gravel originating from Derbyshire are shown in the table below.

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
0.81	0.82	0.95	1.13	1.29	0.94	1.05	0.78	0.57	0.99

Table 2: Sales of Sand and Gravel in Derbyshire 2012-2021[3] (million tonnes)

Table 3 shows what the material was used for in 2021.

Table 3: Use of sand and gravel 2020 (figures in tonnes)

Building Sand	Sand for Concrete making	Gravel for Concrete making	Other screened and graded	Other uses for sand & gravel including fill
6121	248,489	312,130	139,107	290,764

The figures in Table 2 show that production has averaged 0.93 million tonnes over the 10-year period 2012-2021. The figures indicate a gradual but intermittent recovery in

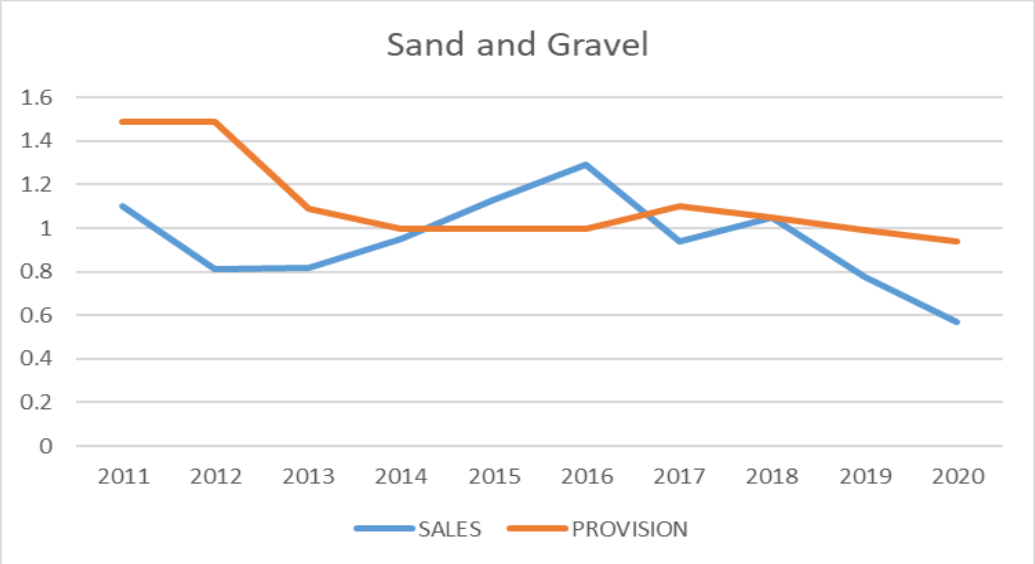
[3] Source: Annual Monitoring Surveys

production after the recession of 2008-2013 affected production levels. This pattern mirrors broadly that of the whole East Midlands Region. More recent production levels have been affected by the Covid 19 pandemic of 2020 as well as exceptional flooding in the Trent Valley area.

For the most recent 3 years (2019-2021), production has averaged 0.78 million tonnes in Derbyshire. This figure will be monitored on an annual basis to highlight recent changes in production and the MPAs will respond to any significant changes which come to light.

The graph below shows sales of sand and gravel against the county's provision rate for the period. Throughout most of this period, sand and gravel sales have not met the level of provision, generally being around 200,000 to 300,000 tonnes below the agreed provision rate. In 2015 and 2016, sales moved slightly higher than the provision rate, before dropping again slightly between 2017 and 2020 and recovering in 2021.

Figure 3: Sales of Sand & Gravel 2012-2021 against past and current provision rate (figures in million tonnes)



Crushed Rock

Resources & Reserves

Derbyshire and the PDNP is one of the largest producers of aggregate grade crushed rock in this country. Crushed rock for aggregate is supplied from Derbyshire and the PDNP, most significantly from the Carboniferous Limestone, to most areas within the UK. It is considered therefore to be a resource of national significance. Quarries within the area covered by the two authorities supplied 12.27 million tonnes of aggregate grade crushed rock in 2021.

Relatively small amounts of gritstone aggregate are quarried from Mouselow Quarry in the north west of Derbyshire and from the Peak District National Park at Shire Hill Quarry, near Glossop.

In 2021, there were a total of nineteen quarries producing aggregate from crushed rock in the area, fourteen of these exploiting the Carboniferous Limestone resource, one working the Permian Limestone resource and four sandstone/gritstone quarries. Those marked with a (i) in Table 4 below extract limestone for the industrial market as their principal product but also produce significant quantities of limestone for use as aggregate.

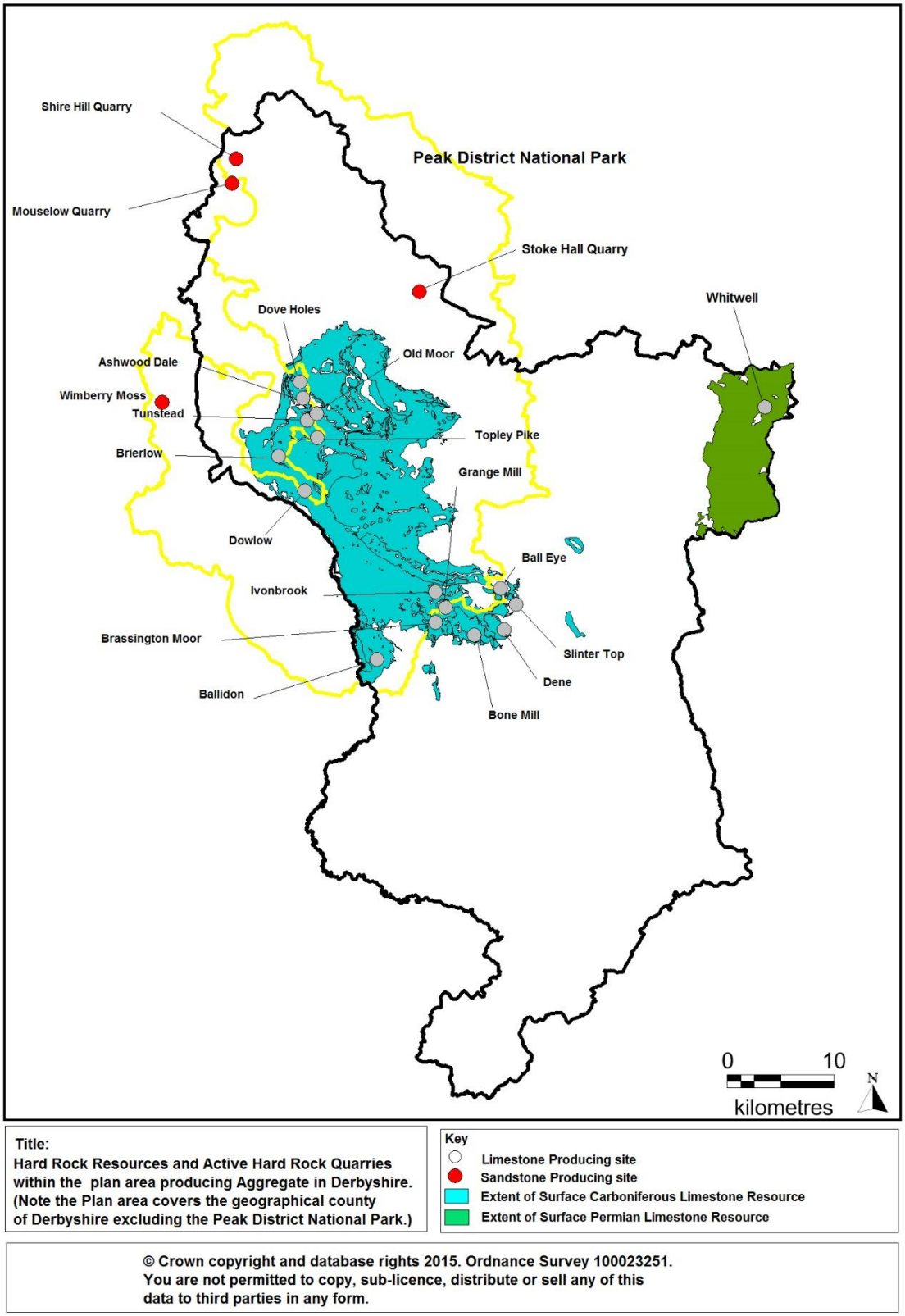


Figure 4: Hard Rock Resources and Active Hard Rock Quarries producing aggregate in Derbyshire and the Peak District National Park 2021

Table 4: Operational Hard Rock Quarries currently producing Aggregate in Derbyshire and the Peak District (Total reserves 506.7 million tonnes)

Quarry	Operator	Aggregate	End date
Derbyshire Quarries			
Ashwood Dale, Buxton (i)	Omya UK	Limestone	2042
Hindlow Quarry, Buxton	Tarmac	Limestone	2042
Brierlow Quarry, Buxton (i)	Lhoist	Limestone	2042
*Dove Holes Quarry, Buxton (Beelow Quarry)	Cemex	Limestone	2042
Dowlow Quarry, Buxton (i)	Breedon	Limestone	2042
Dene Quarry, Cromford	Tarmac	Limestone	2042
*Tunstead Quarry, Buxton (i) (Old Moor Quarry)	Tarmac	Limestone	2042
Slinter Top Quarry, Cromford	Slinter Mining Co.	Limestone	2021
Bone Mill Quarry, Cromford	Longcliffe Quarries	Limestone	2042
Grange Mill Quarry, Cromford (i)	Ben Bennett Jnr.	Limestone	2042
Longcliffe Quarry, Longcliffe (i)	Longcliffe Quarries	Limestone	2042
Whitwell Quarry, Bolsover (i)	Tarmac	Limestone	2025
Glossop Quarry (Mouselow)	Wienerberger	Sandstone	2042
Peak District National Park Quarries			
Ballidon Quarry, Parwich	Tarmac	Limestone	31/12/2035

*Old Moor Quarry, Buxton (i)	Tarmac	Limestone	31/1/2040
Topley Pike Quarry, Buxton	Aggregate Industries	Limestone	21/2/2025
Stoke Hall Quarry, Grindleford	Marshalls	Gritstone	21/02/2042
Wimberry Moss Quarry, Rainow, Cheshire	AM & D Earl	Gritstone	21/02/2042
Shire Hill Quarry, Glossop	Marchington Stone	Gritstone	21/02/2042

The following sites have permitted reserves but currently are not working.

Table 5: Permitted Hard Rock Aggregate Quarries in Derbyshire and the Peak District National Park currently not in production (total reserves 252.3 million tonnes)

Quarry	Operator	Aggregate	End date
Derbyshire Quarries			
Ball Eye Quarry, Cromford	Deepwood Mining	Limestone	2042
Hayfield Quarry		Sandstone	2042
Middle Peak Quarry, Wirksworth	Tarmac	Limestone	2042
*Hillhead Quarry, Buxton	Tarmac	Limestone	2042
Bolsover Moor, Bolsover	Tarmac	Limestone	2042
Hall Dale Quarry	Marshalls Stone	Sandstone	
Peak District National Park Quarries			
*Beelow Quarry, Buxton (Dove Holes)	Cemex	Limestone	22/2/2042

** Cross boundary quarries (associated quarry in brackets)*

(i) extract limestone for the industrial market as their principal product but also produce quantities of limestone for use as aggregate.

These tables show that there is a good spread of sites amongst a number of operators and indicate that, although some of the sites have larger reserves than others, particularly in the Buxton area where the most significant resources are found, the landbank is not bound up in a small number of sites to an extent where it could stifle competition and disrupt supply. It also indicates that the majority of the sites are likely to continue to operate throughout the Plan period, therefore ensuring continuity of supply. The number of sites, reserves available and the operational capacity of the sites means that there is sufficient flexibility to meet upturns in demand for the resource.

The overall landbank of crushed rock in the area, i.e. aggregate and industrial grade, is around 1051.2 million tonnes (886.7mt in DCC and 164.5mt in the PDNP). It has been estimated that of this, 294.7 million tonnes is of industrial (non-aggregate) grade. (214.4 million tonnes in DCC and 80.3 million tonnes in the PDNP). As a result, there is an estimated reserve of rock for aggregate use at these operational and non-operational sites of around 759 million tonnes (672.3mt in DCC and 86.7mt in the PDNP). This would be sufficient for around 65 years provision based on the proposed provision rate of 11.81mtpa. The required landbank for aggregate crushed rock is at least 10 years. (The landbank excludes dormant sites. These are where no minerals development may be carried out lawfully until such time as a new scheme of conditions has been submitted to, and approved by, the mineral planning authority.)

Reserves of crushed rock for aggregate at active sites within the DCC area are 453.1mt and 53.7mt within the PDNP, 506.8mt in total. At current production rates, these reserves would last for around 43 years.

Recent Production

The average annual sales figure for the 10-year period 2012 to 2021 is 10.46million tonnes. This figure comprises 7.41mt for Derbyshire and 3.05mt for the PDNP. For the most recent three years (2019-2021), production of crushed rock in Derbyshire and the Peak District has averaged 11.81 million tonnes. Production of aggregate in the PDNP increased progressively from 2012 to 2016 but there has been a general

decline in production since then. In Derbyshire, production of aggregate crushed rock dropped progressively from 2012 to 2014, with a significant drop in production in 2014 before recovering to some extent in 2015 and with a significant recovery from 2016 to 2019 before falling in 2020 and increasing back to pre-Covid levels in 2021, as shown in Table 6 below.

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
DCC	6.24	5.70	4.17	5.77	8.62	8.86	9.25	9.19	7.23	9.14
PDNP	1.78	2.60	2.72	2.83	3.81	3.32	3.55	3.36	2.60	3.93
Joint	8.02	8.30	6.89	8.60	12.42	12.18	12.80	12.55	9.83	13.07

Table 6: Sales of Aggregate Crushed Rock 2012-2021 (million tonnes)

Roadstone /Asphalt	Concrete Aggregate	Other screened, graded aggregate	Construction fill	Armourstone	Total
4,535,023	2,357,114	1,522,199	4,624,510	10,287	13,069,133

Table 7: How Aggregate Crushed Rock produced in the area is used, 2021 (Figures in tonnes)

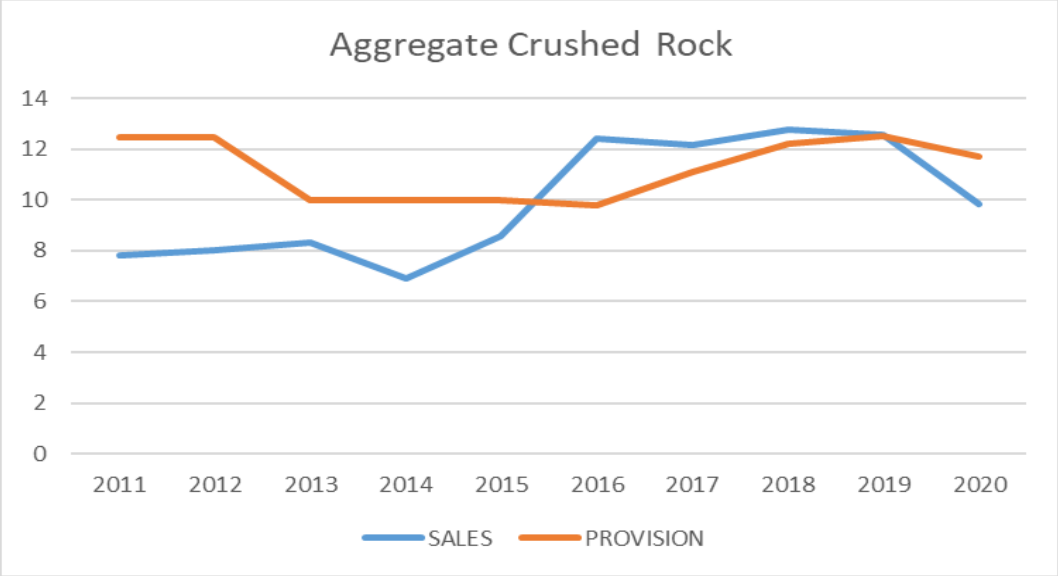


Figure 5: Sales of Aggregate Crushed Rock 2012-2021, against provision rate (figures in million tonnes)

Secondary and Recycled Aggregates

Information on secondary and recycled material that arises in Derby and Derbyshire is often inconsistent and unreliable. This is particularly true for secondary aggregates for which no throughput figures exist. Aggregates from secondary sources have diminished with the demise of heavy industry e.g. steel manufacturing and coal mining.

Recycling of construction and demolition waste (and hence the production of recycled aggregate) is often dealt with at temporary sites and sites exempt from permitting by the Environment Agency and hence good quality data on locations of production and amounts produced is not available. Additionally, a large and unknown proportion of this material is often re-used/recycled on site, and therefore does not enter the waste stream, making it difficult to record. Due to the rural setting and limited development taking place, no significant quantities of secondary and recycled material arise from the PDNP.

In order to attempt to estimate arisings for recycled aggregates, we have to use national and regional surveys that are carried out only periodically. This data then has to be extrapolated to the local level. Although information about this waste stream is relatively poor, some estimates do exist. Nationally, it is estimated that recycled aggregates currently make up around 25% of aggregate use.

The extensive and detailed work to produce the National and Sub National aggregate apportionment figures for the period 2005-2020 took account of the capacity of facilities to provide recycled and secondary aggregates. These proposed that the East Midlands region should provide 110 million tonnes of alternative aggregate materials between 2005 and 2020, equating to 6.8 million tonnes per annum. This is equivalent to 14% of the region's total aggregate supply, so the re-use of recycled and secondary aggregate is expected to be a significant feature of mineral supply. There is, however, no provision of the 110mt figure to individual Mineral Planning Authorities in the region.

A study undertaken on behalf of the Government estimated (subject to a significant margin of error, estimated to be plus or minus 15%) that in 2008, there were 43.5 million tonnes of aggregates produced from recycled materials in England. By

applying the growth rate from the East Midlands Regional Waste Strategy 2006, it is estimated that from 2020 to 2038, Derby and Derbyshire will produce around 3 million tonnes of recycled aggregate on an annual basis.

The overall assumption regarding the provision of alternative aggregates meant that the previous regional apportionment figures for primary land won aggregates were set at a lower level than they otherwise would have been. The use of alternative aggregates manifests itself in the recent sales figures for primary aggregate, which will be used to determine future provision of primary aggregate. It is expected that use of alternative aggregates will continue around this current rate for the foreseeable future.

Further, more detailed work will be undertaken on this issue to determine more precisely the production and use of recycled and secondary aggregates in Derby and Derbyshire. Future LAAs will update the position with this work and the potential implications, if any, for future supply patterns.

4. CALCULATING THE FUTURE PROVISION OF AGGREGATES

The Future Provision of Sand and Gravel

To determine the future provision of sand and gravel, the NPPF states that the previous 10 years' sales need to be taken into account, together with published National and Sub National Guidelines, as well as any other relevant information.

Recent Sales

As set out in the previous section, the average of the previous 10 years' sales of sand and gravel in Derby and Derbyshire is 0.93 million tonnes per year.

When looking ahead at possible future demand, the National Planning Practice Guidance states that LAAs must take into account other relevant local information in addition to the 10-year rolling supply. This section therefore considers the factors that may influence the demand for aggregate. It then sets out the approach the council will take to calculating the level of provision that needs to be made to meet the anticipated demand.

Imports and Exports

A national four-yearly monitoring survey is conducted by the DCLG and the British Geological Survey (BGS) which includes analysis of the movements (imports and exports) of aggregates for each MPA in England and Wales.

Operators of sand and gravel quarries in Derbyshire, provided comprehensive details of exports for the 2019 survey (shown in Table 8 below). This information was not supplied in the 2021 survey.

All these surveys show that the main export markets for sand and gravel are relatively local to the area.

In 2019, 57% of sand and gravel (443,569 tonnes) produced in the county was sold in Derbyshire, Derby and the Peak District National Park.

In 2019, 22% (170,298 tonnes) was exported to other MPAs within the East Midlands. Of the remainder which was sold to areas outside the East Midlands, the majority (20%) was to the West Midlands.

In terms of imports, 521,000 tonnes was imported into the area from other areas in 2019. As set out above, exports were around 335,363 tonnes in 2019.

Table 8: Exports of Derbyshire's Sand and Gravel 2019[4] (Tonnes)

DESTINATION	**(% of total production in brackets)**
Derbyshire, Derby and & The Peak District	443,569 (57%)
Nottinghamshire	101,445 (13%)
Lincolnshire	0
Leicestershire & Rutland	68,625 (8.8%)
Northamptonshire	228 (0.02%)
Other Regions	
North West	356 (0.04%)
Yorkshire & Humber	0
Staffordshire	8681 (1.1%)
West Midlands (not including Staffs)	156,246 (20%)
East of England	0
London	0
South East	10 (0.001%)
South West	0
North East	0
Wales	0

[4] Aggregates Survey 2019

Scotland	0

Marine won Sand and Gravel

Being land-locked, Derbyshire, and indeed the whole of the East Midlands, does not produce any marine sand and gravel. The National and Regional Guidelines have in the past assumed a zero figure for production of this resource in this region. Transport costs also limit the import of this marine resource to this central area of the country. It is assumed, therefore, that marine sand and gravel is not a significant issue for Derbyshire and will not, therefore, form a part of this assessment.

Future Supply from Other Areas

There are significant sand and gravel operations in other parts of the Trent Valley in areas which adjoin Derbyshire, including Staffordshire, Nottinghamshire and Leicestershire. Operations in these areas supply similar markets as the ones which operate in the Derbyshire part of the Trent Valley. It will be important, therefore, to determine likely future trends in production in these areas so that we can assess the potential impact on production in Derbyshire.

The Nottinghamshire LAA sets out that additional reserves will be needed over the plan period to 2036 to replace existing quarries as they are worked out. The newly adopted Minerals Local Plan allocates a mix of extensions to existing permitted quarries and one new quarry.

The Leicestershire LAA indicates that there are permitted sand and gravel reserves to last just over 2.5 years, based on average sales over the most recent ten-year rolling period and there was a shortfall of 11.14mt on the sand and gravel requirement figure to 2031. The Leicestershire Minerals and Waste Local Plan includes proposals for the extension of four of the active sand and gravel operations in the County, which would release some 7.2 million tonnes of potential reserves if approved. This still leaves a shortfall for the county, which is addressed through the provision of flexible policies to allow planning permission to be granted for sand and gravel extraction outside the allocated areas. However, supply can only continue to be sustained in Leicestershire if operators come forward with extensions to existing sites or look to bring forward new

sites. This situation may increase the demand for sand and gravel resources from Derbyshire over the Plan period, although the proposed extension to Lockington may relieve this in the short term. This situation will be monitored by DCC and will be addressed as necessary in forthcoming LAAs.

With regards to Staffordshire, the Minerals Local Plan aims to maintain at least a 7-year landbank of permitted reserves of sand and gravel based on a production capacity of 5.0 million tonnes of sand and gravel per annum. The Staffordshire LAA (based on a 2019 survey) indicates that three sites within the Trent/Tame Valley within Staffordshire continue to produce sand and gravel and there is another operational site within the Dove Valley. Towards the end of the plan period, the construction of HS2 through the area is likely to increase output by around 1mt per annum. Five borrow pits are proposed to meet this additional demand.

It appears, therefore, that future production from quarries in adjoining MPAs, which serve similar markets to the Derbyshire sand and gravel quarries, is most likely to be sustained at similar levels for the foreseeable future. The overall balance of production from these areas supplying similar markets is, therefore, likely to remain similar. This situation will be kept under review and any significant changes which arise will be addressed.

Sales of sand and gravel from Lincolnshire to Derbyshire and the Peak District have increased significantly in recent years whilst sales in the opposite direction have reduced significantly over a similar period. If Lincolnshire begins to use a greater amount of its sand and gravel as its local economy recovers, there may be less available to supply markets elsewhere, including Derbyshire and the Peak District. Commercial decisions will ultimately dictate the specific markets for the product but flexibility in provision would currently allow for the sales from Lincolnshire to be replaced if those supplies became curtailed. This situation will continue be monitored and any changes will be addressed as necessary in future LAAs.

Future Economic Growth

The Government supports an agenda which promotes sustainable growth to stimulate economic recovery. There are a number of planned growth areas and potential major

infrastructure projects in the area, which would help to achieve this aim. These projects would require significant amounts of sand and gravel, and it would be desirable for this to be sourced from the local area to limit the distance that it is transported.

House Building

There is a strong national and regional agenda to increase house building. Future house building over the Plan period is likely to be a significant element in the use of the County's aggregates, as it has been in the past.

During the construction of new houses, a range of aggregate minerals will be consumed including sand and gravel for uses such as concrete, Sherwood Sandstone for mortar, clay for bricks and tiles along with crushed rock for more general construction uses. The Minerals Products Association estimates that a typical house uses up to 200 tonnes of aggregates in its construction[5]. This includes crushed rock as well as sand and gravel. It is worth noting also that the Minerals Products Association estimate that new house building only accounts for around 25% of overall aggregate consumption.

Within the Plan period, the D2N2 Growth Area will result in significant new housing development to the south of Derby and also in the area around Nottingham; an area which is already a significant market for sand and gravel produced in Derbyshire. Planned house building for the Derby Housing Market Area (Amber Valley, Derby City and South Derbyshire) as set out in draft Local Plans, for the period 2011-2028 is currently 33,388 homes[6]. This averages 1,854 dwellings per year.

For Nottinghamshire, based on the most recent 10-year housing trajectory data available from the districts, house building rates in Nottingham and Nottinghamshire are forecast to peak in peak in 2022/2023 at 7,352 dwellings and fluctuate between 6,000-7,000 dwellings per annum until 2028.[7] For the Greater Nottingham Housing Market Area, which is where most of Derbyshire's sand and gravel which travels to

[5] www.mineralproducts.org/MPA/media/root/Publications/2021/Profile_of_the_UK_Mineral_Products_Industry_2021
[6] Housing Delivery in the D2N2 Area, 2016
[7] Nottinghamshire Local Aggregate Assessment, 2022

Nottinghamshire is used, the proposed housing provision figure to 2028, as set out in the District local plans, is 52,050.[8]

Growth is also proposed in other areas which are close to Derbyshire's sand and gravel resources and may therefore add to the demand. Significant housing is proposed in East Staffordshire Borough, the Local Plan proposing almost 6,500 new houses in the Burton area and around 1500 in the Uttoxeter area.[9]

There is some potential for increased demand for sand and gravel from Derbyshire as a result of future housing developments within North West Leicestershire District and the northern part of Charnwood Borough (Loughborough and Shepshed). Housing completions within North West Leicestershire between 2011 and September 2016 totalled 2690, an average of 448 per annum. The Plan makes provision for a minimum of 9620 dwellings over the period 2011-2031[10], an average rate of 481 dwellings per annum.

Housing completions within Charnwood Borough between 2011 and 2018 averaged 666 dwellings per annum[11]. The Borough's Local Plan proposes 13,940 new houses over the period 2011-2028, some 37% of which is proposed in Loughborough/Shepshed), an average rate of 820 per annum[12]. This represents an increase of 36% on recent completions.

Taking account of this information, it seems reasonable to assume that the demand for Derbyshire's sand and gravel as a result of new house building in the area will at least be maintained at current levels, and there are indications that there may be an increased demand for the mineral from the house building industry in future years, particularly given the significant new housing planned in the area around Derby and Nottingham.

[8] Housing Delivery in the D2N2 Area, 2016
[9] East Staffordshire Borough Local Plan, Adopted 2015.
[10] North West Leicestershire Publication Local Plan, Adopted 2017.
[11] Charnwood Borough Council Housing Supply Report, 2018
[12] Charnwood Borough Council Local Plan, Adopted November 2015

An attempt to quantify this would be open to significant interpretation. A crude estimate could be made by multiplying the planned number of forecast new households in the Plan area over the Plan period by the amount of aggregate which houses are estimated to use in their construction (200 tonnes). However, Derbyshire covers a large geographic area and a significant number of the forecast 96,000 new households will not form in the area which uses the sand and gravel from Derbyshire for house construction. It is also likely that many of the new houses to be built in the south of the county will use sand and gravel from neighbouring areas. It is also important to note that the figure of 200 tonnes will include crushed rock as well as sand and gravel. Therefore, if the forecast of 96,000 new households forming in Derbyshire by 2031 was used as a basis for estimating future demand for aggregate, around 2mt of aggregate would be required for new houses annually and this is estimated to represent 25% of total aggregate requirements, which means, using this estimate, around 8mt of aggregate would be required annually from this area. With production of crushed rock and sand and gravel together averaging around 11 million tonnes in the area covered by this LAA, it is clear that sufficient aggregate is being made available from this area. To be able to put a more precise number on future demand for sand and gravel from house construction which would not be open to interpretation would require detailed formulaic modelling which this authority is not currently in a position to carry out.

Provided that the data continues to be monitored on an annual basis, any significant changes will be detected and the necessary action will be taken to ensure that there continues to be an adequate and steady supply of aggregate minerals provided over the Plan period. The Minerals Local Plan also proposes an additional sites policy to allow sites to come forward that are not allocated in the Plan should monitoring show that the provision figure needs to be higher.

Infrastructure Projects

Within the Plan period, major infrastructure projects are planned to take place in the area and in the surrounding areas which currently use sand and gravel quarried from Derbyshire within the Plan period. A new gas fired power station is proposed at Willington. A new regional freight depot is also being built in the southern part of the area, adjacent to East Midlands Airport, off J23A of the M1 Motorway. This is close to

the area of Derbyshire where sand and gravel is produced. Depending on contractual arrangements/market drivers, these projects may demand sand and gravel from quarries in Derbyshire.

Conclusions

The East Midlands Aggregates Working Party (EMAWP) has agreed an approach whereby the future provision rate should be based primarily on the previous 10-year average figure. For Derbyshire, this figure is 0.93 million tonnes. Sales of sand and gravel over the most recent 3 years (2019-2021), (which is used to identify the general trend of demand as part of the consideration of whether it might be appropriate to increase mineral supply) has averaged slightly lower than this figure, at 0.78 million tonnes. It is likely that the figure will increase to some extent over the next few years as a result of the planned economic growth in the area where the demand for the sand and gravel is greatest.

Having taken account of all relevant factors (as set out in national policy), outlined above, particularly the ten and three year averages, the forecast house building in the area covered by this LAA and the surrounding area, as well as current and planned future infrastructure projects, (in the south of the Plan area in particular) which are likely to draw on Derbyshire's sand and gravel resources, it is considered that an annual figure of 0.93 million tonnes should be used to determine future provision for sand and gravel. This figure will continue to be reviewed on an annual basis to ensure that it takes account of any significant changes in sales and demand, as well as any other new and emerging information, particularly relating to economic growth.

It should be noted that this proposed figure is not a ceiling figure; there may be years when production is higher than this. It is intended, therefore, as an average figure to guide production over the Plan period.

Based on this proposed annual provision rate of 0.93 million tonnes, the proposed total apportionment for the 17-year period 2022-2038 that Derbyshire will provide is 15.81 million tonnes of sand and gravel (0.93 x 17). As set out above, there are already permitted reserves of 9.43 million tonnes. Additional provision will have to be made,

therefore, for around 6.38 million tonnes of sand and gravel for the Plan period to 2038.

This provision will be made in the emerging Minerals Local Plan through allocated sites. Sites have been put forward by mineral operators which are being assessed through the Local Plan process, and the sites which are allocated in the Plan will address the future requirement for sand and gravel to 2038. Annual monitoring will continue to ensure that a seven-year landbank is maintained.

The Future Provision of Aggregate Crushed Rock

To determine the future provision of aggregate crushed rock in Derbyshire and the PDNP, the previous 10 years sales need to be taken into account, as well as any other relevant information.

Recent Sales

In determining the level of future provision of crushed rock, the Assessment should first consider past sales for the previous 10 years. This includes limestone and gritstone/sandstone.

As explained above, the average annual sales figure for the area for the 10-year period 2012 to 2021 is 10.46mt. This figure comprises 7.40mt for Derbyshire and 3.05mt for the PDNP. The most recent 3-year average is 11.81 million tonnes (8.52mt for Derbyshire and 3.29mt for the PDNP).

Imports and Exports

The most recent 2021 survey did not collect information regarding destination of aggregate crushed rock. The 2019 data is used therefore to provide a recent picture of the supply situation for Derbyshire, as shown in the table below.

34% of the aggregate grade crushed rock that was quarried from Derbyshire was used within this same area[13] and around 40% of the total production was consumed in the East Midlands (including Derbyshire and the PDNP). A significant proportion of Derbyshire's production goes to the North West Region (21%) and 15% to the Yorkshire/Humber Region. The West Midlands and East of England together also take a significant amount (10% and 7% respectively) and the South East, London, Wales and the South West regions together take about 5% in total. The majority of production from the PDNP (37%) is used within the local area and 31% is used within the North West region. The West Midlands and London are also significant markets. We have contacted the authorities which use significant amounts of crushed rock for aggregate from this area. The indications from these authorities is that it would be likely that their demand would remain similar to current levels over the period to 2038.

[13] Mainly within the area of Derbyshire outside the PDNP, as a result of the general restriction on development in the Peak District National Park.

Table 9: Exports of Crushed Rock from Derbyshire and Peak District Quarries (Tonnes)[14]

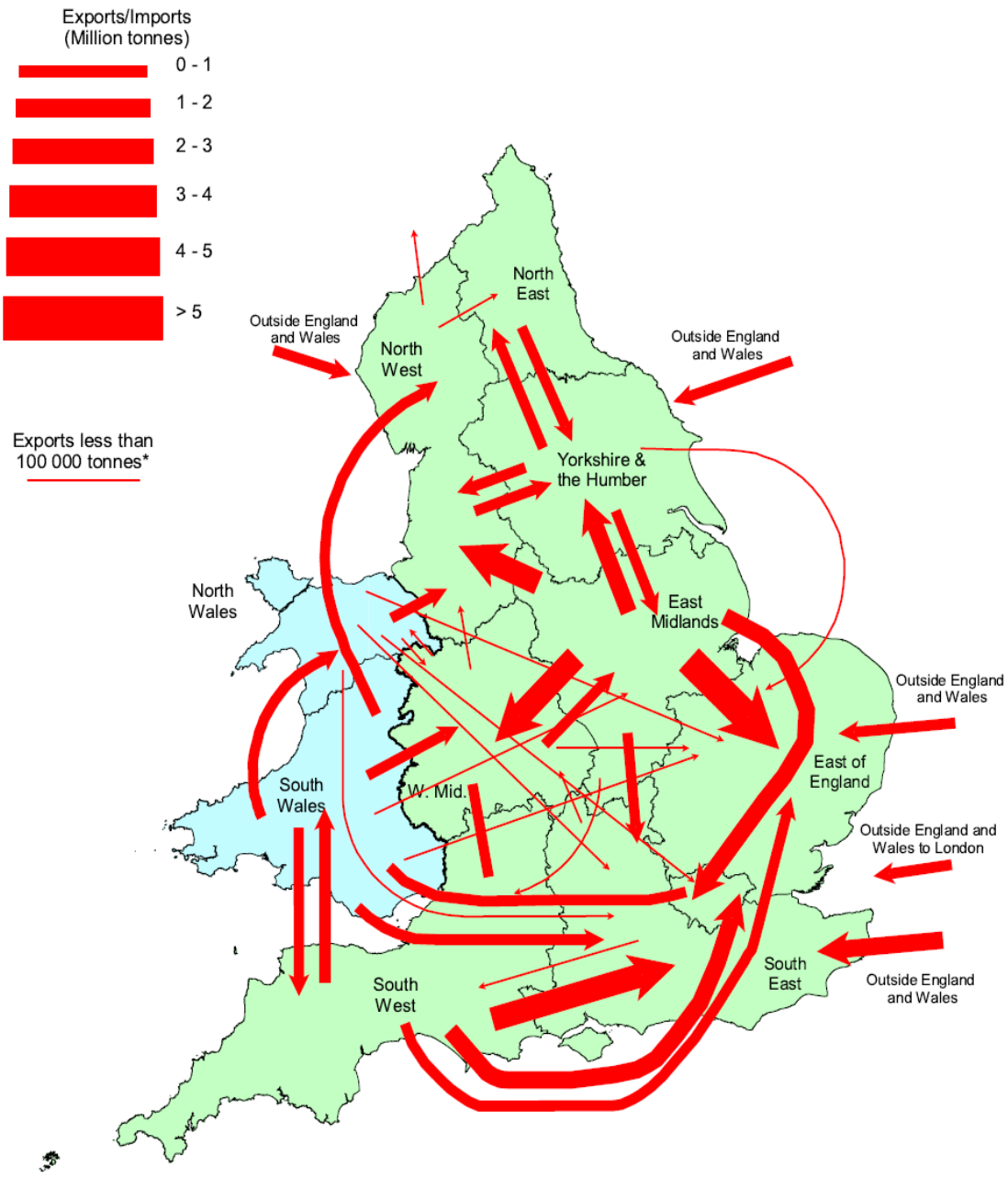
	Produced in Derbyshire 2019	**Produced in the Peak District 2019**
DESTINATION		
Derbyshire Derby & Peak District	3,078,617 (34%)	1,255,018 (37%)
Nottinghamshire	362,993 (6%)	34,124 (1%)
Lincolnshire	47,486 (0.5%)	0
Leicestershire & Rutland	78,368 (0.8%)	10,107 (0.3%)
Northants	2117 (0.02%)	459 (0.01%)
Other Regions		
North West	1,916,101 (21%)	1,040,000 (31%)
Yorkshire & Humber	1,406,521 (15%)	28,164 (0.8%)
West Midlands	949,890 (10%)	390,077 (11.6%)
East of England	604,124 (7%)	122,477 (3.6%)
London	48,934 (0.01%)	330,000 (9.8%)
South East	300,255 (4%)	141,000 (4.2%)
Home Counties	301,411 (3%)	8,146 (0.2%)
South West	672 (0.0005%)	0
North East	138 (0.0002%)	168 (0.004%)
Shropshire	3828 (0.04%)	974 (0.02%)
Wales	4463 (0.07%)	129 (0.003%)
Scotland	1588 (0.01%)	0
Totals	**9,189,407**	**3,360,849**

It is clear from the size of Derbyshire and the PDNP's landbank of aggregate grade crushed rock that it will be able to continue to supply these markets as required at least over the timescales covered by the authorities Development Plans. The area is, and is likely to continue to be, an important supplier of aggregate grade crushed rock on a wide geographical scale.

[14] Aggregates Survey 2019

Although it can be seen that Derbyshire and the PDNP export a significant amount of aggregate grade crushed rock, some is also imported into the area. This is likely to be a result of market forces and commercial decisions, as well as the need to import any particular types of aggregate which cannot be supplied from within the sub-region as a result of geological or resource constraints. In 2019, 456,000 tonnes of aggregate grade crushed rock was imported to Derbyshire and the Peak District, the majority of which originated from Leicestershire/Rutland. Data shows that the majority of the remainder is imported from the North West, Yorkshire and Humber and the West Midlands regions.

Figure 6: Crushed rock inter-regional flows



It is apparent, therefore, that Derbyshire and the PDNP is a significant net exporter of aggregate grade crushed rock to other areas, currently amounting to around 7-8 million tonnes each year. Derbyshire has significant resources of hard rock compared with many other areas in the country and it will be important, therefore, to maintain this level of supply in order to sustain and stimulate national economic growth.

Future Supply from Adjacent Areas

Leicestershire is the only adjoining authority which produces aggregate crushed rock to a significant extent. The Leicestershire LAA indicates also that there will be sufficient reserves in the foreseeable future to sustain production at recent levels. It is likely, therefore, that the overall balance of production from areas supplying similar markets to Derbyshire and the PDNPA is likely to remain similar over the timescales covered by the authorities' Development Plans.

Future Economic Growth

Limestone from Derbyshire and the Peak District is a resource of national importance, which does not exist to such an extent in most other areas of the country. As can be seen from Table 9 above, the markets for this product are, therefore, much wider than they are for sand and gravel.

Proposed sustainable economic growth in many areas which already draw on the resource is likely, therefore, to at least maintain the demand and may lead to an increase in demand for the mineral over the Plan period. There are a number of proposals which should be taken into account in this respect and could lead to an increase in demand for crushed rock (limestone) from this area.

The Government supports an agenda which promotes sustainable growth to stimulate economic recovery. There are a number of planned growth areas and potential major infrastructure projects in the area, which would help to achieve this aim. These projects would require significant amounts of crushed rock from Derbyshire.

There is a strong national and regional agenda to increase house building. Future house building over the Plan period is likely to be a significant element in the use of the aggregate from this area.

It is likely that proposed housing and economic development in the Three Cities Growth Area (an area proposed for economic growth centred on Nottingham, Leicester and Derby), particularly in the area to the south of Derby and around Nottingham[15], will result in an increased demand for Derbyshire's mineral resources, as well as

[15] See page 30 for details of proposed housing numbers

planned development in the Sheffield City Region and the Manchester City Region Growth Areas, which are important existing markets for aggregate crushed rock from Derbyshire. There may also be an increased demand as a result of development in the Milton Keynes and South Midlands Growth Zone. The proposed high-speed rail link (HS2) between London and Birmingham and the Regional Freight Depot near East Midlands Airport are also likely to increase the demand for crushed rock aggregate from this area within the Plan period.

It is not possible to assess precisely the demand for aggregates associated with these projects at this stage, but future assessments will monitor progress with these major development proposals and respond as necessary to any significant changes that arise.

Progressive Reduction in Quarrying from the Peak District National Park

The PDNP has a policy in its Core Strategy (Policy MIN1) which only allows for further new quarries or extensions to existing quarries in exceptional circumstances, in order to implement the continued gradual reduction of mineral that is quarried from within the National Park. The primary aim of this approach is to protect the nationally important landscape, as set out in NPPF.

In this respect, the NPPF seeks, as far as is practical, to provide for the maintenance of landbanks for non-energy minerals outside areas such as National Parks. This should be considered in the context of the benefits of mineral extraction to the economy and ensuring that adequate supplies of minerals are provided, recognising that minerals can only be worked where they occur. Future contributions of aggregate from the Peak District National Park and the implications for mineral extraction in areas outside the National Park will need to be considered in light of these issues.

Derbyshire County Council will continue to support this approach through a 10% reduction in the aggregate crushed rock provision figure for the PDNP and a compensatory increase in its provision figure for aggregate crushed rock of 10%.

Conclusions

The East Midlands Aggregates Working Party (EMAWP) has agreed an approach whereby the future provision rate should be based primarily on the most recent ten-year average sales figure. As well as taking account of this ten-year average figure, other important local and wider matters must be taken into consideration in formulating the final provision rate, as set out above, including the most recent three-year average sales figure.

The ten-year average figure includes a 4 year period of depressed sales of aggregate crushed rock from 2012 to 2015, as a result of an economic downturn when reduced demand saw sales being significantly lower than they had been in previous years. Increased demand since 2016 has seen an increase in the three-year average sales figure which, at 11.81mt, is now significantly above the ten-year average figure of 10.46mt. As a result, it would seem inappropriate to base future demand for aggregate crushed rock on the ten-year sales figure. The LAA considers that the three-year sales average is now most representative of demand and is likely to be more representative of anticipated demand in future years.

Future housing growth and other economic and infrastructure projects that could result in a demand for aggregates from Derbyshire and the Peak District National Park are not considered likely to result in a level of demand that is not reflected in the three-year sales average. However, production of aggregate crushed rock from the area will continue to be monitored on an annual basis and, along with other factors such as economic growth and the NPPF requirement to maintain landbanks outside National Parks, will inform the review of provision rate figures in future LAAs.

To continue to reflect the initiative to help to reduce quarrying of crushed rock in the PDNP, the PDNP element of the provision figure will be reduced by 10% and this will be applied to the DCC provision figure. This works out as 11.81 million tonnes per annum (8.85mtpa for Derbyshire and 2.96mtpa for the PDNP). This proposed figure for Derbyshire allows for the continued compensation for the progressive loss of production from the PDNP. As the run down in production from the National Park continues over time, DCC's share of this figure will increase progressively.

As a result, from 2022 to 2038, Derbyshire and the PDNP will make provision for 200 million tonnes of aggregate grade crushed rock (11.81mt x 17 years). Assuming 11.81mt per annum is worked over 17 years, and that no further reserves are permitted in this time, there will still be a landbank of aggregate grade crushed rock of 559 million tonnes by 2038, sufficient to last around 48 years at current average production rates. There is sufficient supply, therefore, to meet future demand for aggregate grade crushed rock, which this area currently supplies.

This document has been the subject of a sustainability appraisal. This is available on our website at www.derbyshire.gov.uk

Produced by Derbyshire County Council, Derby City Council and the Peak District National Park Authority. If you have any queries regarding this document, please contact The Minerals Planning Team, Derbyshire County Council, County Hall, Matlock, DE4 3AG, or email Planning.wastemin@derbyshire.gov.uk