



Cumbria and the Lake District National Park

Joint Annual Local Aggregates Assessment 2021 (incorporating figures for 2019 and 2020)

EXECUTIVE SUMMARY

- 1.1 This Local Aggregates Assessment (LAA) is prepared jointly by Cumbria County Council (CCC) and the Lake District National Park Authority (LDNPA). It forms part of the evidence base for monitoring and review of their local plans. The Cumbria Minerals and Waste Local Plan (CMWLP) 2015 -2030 was adopted by CCC in September 2017. The LDNPA has reviewed its local plan (which includes minerals policies) and the Lake District Local Plan (2020-2035) was adopted in May 2021.
- 1.2 This LAA reports on two years of data (2019 and 2020). The sales, reserves and landbank provision figures for all aggregates in Cumbria (excluding sites within the Yorkshire Dales National Park boundary) are summarised in the table at the end of this chapter. A table summarising the 2019 data is also included for comparison. With the exception of sandstone and igneous (excluding the high specification roadstone) all other aggregates saw an increase in sales during 2019 compared to the previous year, and then a drop in sales during 2020 compared to 2019, with some sales figures dropping below the 2018 sales. This was anticipated due to the impact of the Covid-19 pandemic during 2020, with a national lockdown commencing in March 2020 and ongoing restrictions on the economy. In spite of this, however, sales of high specification roadstone and of sand and gravel remained higher than their 2018 figures. Sales of sandstone and igneous (excluding high specification roadstone) did drop a little in 2019 but stayed the same in 2020, with the overall effect that sales of all sandstone and igneous combined maintained the 2018 sales level.
- 1.3 With the exception of sand and gravel sales which dropped in 2018, and sandstone and igneous (excluding high specification roadstone), aggregate sales over the past 3 years (2018 – 2020) have been higher than the sales recorded for 2017. This has the effect of making the 3 year average sales figures for all crushed rock (and specifically limestone and high specification roadstone) noticeably higher than that calculated in the previous 2019 LAA. However, the 10 year average sales figures are lower than those calculated in previous LAAs as the much higher sales figures from 2009 and 2010 are no longer captured in the 10 year average calculations. The pattern of sales, reserve and landbank calculations over the past 3 years are shown in summary tables by aggregate type at the end of this chapter.

Sand and Gravel

- 1.4 Current permitted reserves of land-won sand and gravel for aggregate use (6.03Mt) are not sufficient to maintain the required landbank of at least 7 years throughout the Plan periods (2030 and 2035). **The LAA provision will continue to be based on 3-year average sales figures (currently 0.74Mt) giving a landbank of 8.15 years which would run out in 2029.** In order to ensure permitted reserves remain above the “at least” 7 years landbank required by the NPPF, new reserves need to come on stream no later than 2022.
- 1.5 An additional 6.55Mt of sand and gravel reserve is required to maintain a landbank of at least 7 years throughout the CMWLP period (to 2030) based on 3-year average sales figures. This would increase to 6.80Mt in the event of no further extraction taking place at Brocklewath and Roosecote.
- 1.6 Due to a high proportion of the sales and reserves figures for sand and gravel quarries being estimates for both the 2019 and 2020 surveys, in the absence of confirmed sales and reserve figures from operators, predictions on the end date of the landbank for sand and gravel should be treated with some caution, and the precise point at which the landbank falls below the minimum requirement could fluctuate. However, it is predicted that new reserves will be required within the current CMWLP period (i.e. before 2030).

Crushed Rock

- 1.7 Current permitted reserves of all crushed rock for aggregate use (116.35Mt) are more than sufficient to maintain the required landbank of at least 10 years throughout the Plan periods. **The LAA provision will continue to be based on 10-year average sales (2.80Mt) giving a land bank of 41.6 years.** In order to ensure permitted reserves for all crushed rock remain above the minimum 10 years required by the NPPF, new reserves will need to come on stream no later than 2052.
- 1.8 **The LAA provision for sandstone and igneous (excluding high specification aggregates) will now be based on 10-year average sales (0.35Mt) giving a land bank of 57.37 years.** This reflects the fluctuating sales figures over recent years and is higher than the current 3 year average sales figure of 0.29Mt. In order to ensure permitted reserves for sandstone and igneous remain above the minimum 10 years required by the NPPF, new reserves will need to come on stream no later than 2068.
- 1.9 **The LAA provision for limestone alone (also excluding high specification aggregates) will continue to be based on 10-year average sales (1.95Mt) giving a land bank of 41.08 years.** This is comparable to the last LAA 10-year average sales figure of 2.0Mt. This will be kept under review. Increased sales and firmer timescales on some of the major infrastructure projects planned for the county would be factors in deciding whether departure from the 10-year average sales figure could be justified in future LAAs. Based on current 10-year average sales, in order to ensure permitted reserves for limestone remain above the minimum 10 years required by the NPPF, new reserves will need to come on stream no later than 2052.

High specification aggregates

- 1.10 Current permitted reserves of high specification (HSA) and very high specification aggregates (VHSA) for use as roadstone is 16.15Mt. This is sufficient to maintain the required minimum 10 year landbank throughout the Plan periods. **The LAA provision will continue to be based on 10-year average sales (0.48Mt) giving a landbank of 33.64 years.** This is a further drop from 0.57 Mt in 2017, 0.54Mt in 2018 and 0.52Mt in the 2019 LAA (all based on 10-year average sales) and is below the current 3 year average sales of 0.51Mt as a result of increased sales over the past 3 years. Given the scarcity of this resource it is important to manage release of the available reserve to ensure it is done in respect of actual demand rather than perceived demand.
- 1.11 This provision rate gives a landbank of 33.64 years which should last until 2054. To maintain a landbank of at least 10 years for these high specification aggregates throughout the CMWLP period new reserves would need to come on stream by no later than 2044. If the higher provision rate of 0.51Mt was applied there would still be sufficient reserve to maintain the required landbank throughout the CMWLP period with new reserves needed by 2042.
- 1.12 Ghyll Scaur is the only operating quarry in England to produce the VHSA roadstone. This is a nationally significant resource and therefore demand is likely to increase as a result of planned growth in housing and infrastructure across the UK, not just within Cumbria. Any reduced production from quarries producing this aggregate in the Yorkshire Dales National Park will also placed increased demand on the high specification roadstone quarries within Cumbria.

Alternative aggregates

- 1.13 Recorded sales of secondary and recycled aggregates on the 2020 operator returns is 0.54Mt; 0.32Mt excluding slate waste. This shows a trend of increased sales/ use of recycled aggregate from inert waste over the past 3 years.
- 1.14 Trends in sustainable construction methods and the Government's commitment to EU targets for recycling of construction and demolition waste (70% by 2020) mean that recycled aggregates should continue to be readily available and increasingly used in development projects.

Managing supply and demand

- 1.15 Cumbria has traditionally supplied far more aggregate than is needed for its own use and this trend continues.
- 1.16 Many of the planned infrastructure requirements within Cumbria (see *Appendix 1 – Other Local Information*) are not expected to reach construction stage until 5- 10 years' time. Significant developments currently anticipated to commence within the next 5 years or so are the Carlisle Southern Link Road and the A66 dualling, as well as some initial phases of the St. Cuthbert's Garden Village (subject to the granting of planning permission). Construction of the CSLR and the A66 dualling programme (including sections outside of Cumbria) is likely to impact on demand for aggregates, in particular the high specification

roadstones. Other road building/improvement programmes currently planned or underway across the UK will also impact on this demand.

- 1.17 Planned infrastructure requirements outside of Cumbria have also been taken into account when preparing this LAA. Some major non-highways projects are currently expected to commence within the next 5 years. This will need to be kept under review as the cumulative impact of projects coming on line within the current Plan period could have an impact on the landbank position.
- 1.18 There are a number of highways schemes, mainly in the North East region, that are scheduled for construction within the next 5 years so there is a strong likelihood that demand will increase for imports of HSA and VHSA roadstone from Cumbria as a result.
- 1.19 As a nationally significant resource, the supply of HSA and VHSA roadstone will be affected by major infrastructure requirements from across the UK and not just within Cumbria. Additional monitoring of this reserve is required, particularly as Cumbria contains the only operating quarry in England to produce the VHSA roadstone at Ghyll Scaur. Demand is likely to increase with various national infrastructure projects coming forward such as investment in new roads, airport expansion projects and new nuclear plant facilities. It is likely these projects could reach construction stage in 5 – 10 years' time so supply will be affected within the Plan periods and landbanks will need to be monitored accordingly.
- 1.20 Site Allocations have been made in the CMWLP that would provide sufficient reserve to maintain the landbank required for sand and gravel, however there is no guarantee that applications will be forthcoming. There is potential for marine-dredged sand and gravel to make a greater contribution towards the supply although landing figures are unpredictable and zero landings have been recorded since 2018. The Crown Estate has confirmed there is sufficient vessel capacity and licenced material in the region to re-establish supply if market conditions provide sufficient economic demand. The use of secondary and recycled aggregates should also continue to be encouraged as an alternative.
- 1.21 Site Allocations have been made in the CMWLP for safeguarding the reserve of high specification roadstone but no provision is made for very high specification roadstone. There is an area with potential for VHSA close to Ghyll Scaur however this lies within the Lake District National Park.
- 1.22 There are no concerns at this stage regarding supply and demand of crushed rock generally. Where any planning permissions for crushed rock extraction are due to expire within the Cumbria Minerals and Waste Local Plan period (2015 -2030), the relevant planning policies within the Plan would support both extension of time and lateral extension in principle to ensure continued access to the remaining resource where there is a need for that aggregate.
- 1.23 As required by the NPPF, in addition to the specific Site Allocations mentioned in this LAA, both the CMWLP and the LDNPA Local Plan have designated Minerals Safeguarding Areas to ensure that known minerals resources - including existing, planned and potential infrastructure and plant - are not sterilised by other non-minerals developments. Railheads and wharves are also safeguarded under separate Local Plan policy.

Table 1A: Executive summary table for 2021 LAA (based on 2020 data)

Aggregate sales, reserve & landbank 2020	Reserves Mt	Sales Mt 2020	Trend ¹	10 yr avg sales	3 yr avg sales	LAA provision ²	Landbank (years) ³	Landbank end date	Reserve & Landbank years remaining at end of 2030	Additional tonnage required to maintain landbank ⁴
Crushed Rock										
Limestone	80.1	1.89	↓	1.95	1.97	1.95	41.08	2062	41.12 Mt (+31.09 years)	-
Igneous + sandstone exc. V/HSA	20.08	0.25	↓	0.35	0.28	0.35	57.37	2078	13.08Mt (+47.37 years)	-
V/HSA igneous + sandstone	16.15	0.45	↓	0.48	0.51	0.48	33.64	2054	6.55 Mt (+23.64 years)	-
TOTAL igneous + sandstone.	36.23	0.7	↓	0.83	0.79	0.83	43.65	2064	19.63Mt (+33.65 years)	-
TOTAL ALL crushed rock	116.35	2.59	↓	2.80	2.80	2.80	41.55	2062	60.35 Mt (+31.55 years)	-
Sand and Gravel										
Land-won sand and Gravel	6.03	0.75	↓	0.66	0.74	0.74	8.15	2029		
Marine- ⁵ dredged	0.0	0.0	↔	-	-	-	-	-		-
TOTAL sand and gravel	6.03	0.75	↓	0.66	0.74	0.74	8.15	2029	-6.55 Mt (deficit) -1.85 yrs (deficit)	6.55Mt
Secondary/Recycled aggregates										
Recycled Aggregate	-	0.321	↑	-						
Secondary aggregate (Slate waste)	-	0.220	↔	-						
TOTAL Recycled and secondary	-	0.541 (0.54 Mt)	↑	-	-	-	⁶	-		-

¹ Compared to previous year's sales (2019)

² 10 -year average sales is the starting point but the LAA should also take into account recent trends (3-year average sales) and Other Relevant Local Information when establishing what sales figures to use when calculating landbank provision

³ Calculated from LAA provision figure *this table is based on the figures set in the 2021 LAA from 2019 and 2020 data*

⁴ Only required where there is a deficit. Calculated to maintain landbank requirement until end of Plan period (2030) i.e. to last until 2037 or 2040 .This is based on the LAA provision figure.

⁵ Refers to recorded landings at Barrow, not to a permitted reserve

⁶ Landbank not required for secondary aggregates

Table 1B: Summary table of sales, reserve and landbank trends based on 2019 data

Aggregate sales, reserve & landbank 2019	Reserves Mt	Sales Mt 2019	Trend ⁷	10 yr avg sales	3 yr avg sales	LAA provision ⁸	Landbank (years) ⁹	Landbank end date	Reserve & Landbank years remaining at end of 2030	Additional tonnage required to maintain landbank ¹⁰
Crushed Rock										
Limestone	77.08	2.16	↑	2.02	1.17	2.02	38.16	Early 2058	34.66 Mt (+27.16 years)	-
Igneous + sandstone exc.V/HSA	22.93	0.28	↓	0.37	0.33	0.33 ¹¹	69.45	Mid 2089	15.99Mt (+58.48 years)	-
V/HSA igneous + sandstone	15.5	0.57	↑	0.5	0.51	0.5	31.02	Late 2050	5.0 Mt (+20.0 years)	-
TOTAL igneous + sandstone.	38.43	0.85	↑	0.86	0.84	0.86	44.68	Late 2064	20.37Mt (+33.68 years)	-
TOTAL ALL crushed rock	115.51	3.01	↑	2.9	2.81	2.9	39.83	Late 2059	54.6 Mt (+28.83 years)	-
Sand and Gravel										
Land-won sand and Gravel	6.63	0.77	↑	0.64	0.76	0.76 ¹²	8.7	Late 2028		
Marine- ¹³ dredged	0.0	0.0	↔	-	-	-	-	-		-
TOTAL sand and gravel	6.63	0.77	↑	0.64	0.76	0.76	8.7	Late 2028	-7.05 Mt (deficit) -2.27 yrs (deficit)	7.05Mt
Secondary/Recycled aggregates										
Recycled Aggregate	-	0.235	↑	-						
Secondary aggregate (Slate waste)	-	0.220	↔	-						
TOTAL Recycled and secondary	-	0.456 (0.5Mt)	↑	-	-	-	- ¹⁴	-		-

⁷ Compared to previous year's sales (2018)

⁸ 10 -year average sales is the starting point but the LAA should also take into account recent trends (3-year average sales) and Other Relevant Local Information when establishing what sales figures to use when calculating landbank provision

⁹ Calculated from LAA provision figure (*this table is based on the 2019 LAA provision figures from 2018 data as no 2020 LAA produced*)

¹⁰ Only required where there is a deficit. Calculated to maintain landbank requirement until end of Plan period (2030) i.e. to last until 2037 or 2040 .This is based on the LAA provision figure.

¹¹ Based on 3-year average sales

¹² Based on 3-year average sales

¹³ Refers to recorded landings at Barrow, not to a permitted reserve

¹⁴ Landbank not required for secondary aggregates

Table 1C: 3-year summary of sales and reserves for Sand and Gravel

Summary of Sales and Reserves data SAND AND GRAVEL	2020	2019	2018
Year end sales figures (million tonnes)	0.75	0.77	0.71
10-year average sales (million tonnes)	0.66	0.64	0.62
3-year average sales (million tonnes)	0.74	0.76	0.77
Permitted reserves of sand & gravel (million tonnes)	6.03	6.63	7.26
Landbank based on 10-year average sales (years)	9.14	10.36	11.72
Landbank based on 3-year average sales (years)	8.15	8.73	9.43
LAA provision	0.74	0.76	0.77
Landbank end date – based on LAA provision	Early 2029	Late 2028	Mid 2028
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	-6.55 Mt (deficit) - 1.85 yrs	-7.05 Mt (deficit) -2.27 yrs	-7.36 Mt (deficit) - 2.57 yrs
Additional tonnage required to maintain landbank – based on LAA provision	6.55 Mt	7.05 Mt	7.37 Mt

Table 1D: 3-year summary of sales and reserves for Crushed Rock

Summary of Sales and Reserves data ALL CRUSHED ROCK	2020	2019	2018
Year end sales figures (million tonnes)	2.59	3.01	2.82
10-year average sales (million tonnes)	2.80	2.9	2.89
3-year average sales (million tonnes)	2.80	2.81	2.77
Permitted reserves (million tonnes)	116.35	115.51	120.88
Landbank based on 10-year average sales (years)	41.55	39.83	41.83
Landbank based on 3-year average sales (years)	41.55	41.11	43.64
LAA provision	2.80	2.9	2.89
Landbank end date – based on LAA provision	Mid 2062	Late 2059	Late 2060
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	60.35 Mt (surplus) + 31.55 yrs	54.6 Mt (surplus) + 28 yrs	57.30 Mt (surplus) +29.83 yrs
Additional tonnage required to maintain landbank – based on LAA provision	-	-	-

Table 1E: 3-year summary of sales and reserves for Limestone

Summary of Sales and Reserves data LIMESTONE	2020	2019	2018
Year end sales figures (million tonnes)	1.89	2.16	1.99
10-year average sales (million tonnes)	1.95	2.02	2.00
3-year average sales (million tonnes)	1.97	1.97	1.89
Permitted reserves (million tonnes)	80.12	77.08	81.94
Landbank based on 10-year average sales (years)	41.08	38.16	40.97
Landbank based on 3-year average sales (years)	40.67	39.13	43.35
LAA provision	1.95	2.02	2.00
Landbank end date – based on LAA provision	Early 2062	Early 2058	Late 2059
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	41.12 Mt (surplus) +31.09 yrs	34.66 Mt (surplus) +27.16 yrs	37.94 Mt (surplus) +28.97 yrs
Additional tonnage required to maintain landbank – based on LAA provision	-	-	-

Table 1F: 3-year summary of sales and reserves for High specification roadstone

Summary of Sales and Reserves data HIGH SPECIFICATION ROADSTONE (HSA & VHSA)	2020	2019	2018
Year end sales figures (million tonnes)	0.45	0.57	0.52
10-year average sales (million tonnes)	0.48	0.50	0.52
3-year average sales (million tonnes)	0.51	0.51	0.47
Permitted reserves (million tonnes)	16.15	15.50	16.11
Landbank based on 10-year average sales (years)	33.64	31.00	30.98
Landbank based on 3-year average sales (years)	31.66	30.39	34.28
LAA provision	0.48	0.50	0.52
Landbank end date – based on LAA provision	Mid 2054	Start 2051	Late 2049
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	6.55 Mt (surplus) + 23.64 yrs	5.0 Mt (surplus) +20 yrs	4.67 Mt (surplus) +18.98 yrs
Additional tonnage required to maintain landbank – based on LAA provision	-	-	-