

**Joint Local Aggregates Assessment
2023 (incorporating figures for 2022) –
Cumberland Council, Westmorland and
Furness Council, Lake District
National Park Authority**



Working for Cumberland Council and
Westmorland & Furness Council

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1.0 Executive Summary

Summary dashboard

Resource	Sales in 2022 (Mt)	Trend compared to 2021	Annual provision rate (Mt)	Permitted reserves (Mt)	Landbank (years)
Land-won sand and gravel	0.8	↓	0.8	4.72	5.89
Marine-dredged sand and gravel	Nil	↔	Not applicable	Not applicable	Not applicable
Crushed rock	2.66	↓	2.77	111.09	40.10
Recycled and secondary aggregates	0.284	↔	Not applicable	Not applicable	Not applicable

- 1.1 This Local Aggregates Assessment (LAA) is produced jointly by Cumberland Council, Westmorland and Furness Council 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 Cumbria County Council in September 2017. The LDNPA has reviewed its local plan (which includes minerals policies) and the Lake District Local Plan (LDLP) was adopted by the LDNPA in May 2021 and covers a Plan period of 2020 - 2035.
- 1.2 Following local government reorganization (LGR) in April 2023, Cumberland Council and Westmorland and Furness Council will each begin to prepare a new Local Plan for their administrative areas. As unitary authorities, the new councils now have responsibility for minerals planning policy and it is envisaged this will be incorporated into the new Local Plans. In the meantime, the adopted CMWLP remains in force as the relevant minerals planning policy across both council areas.
- 1.3 This LAA reports on the data from 2022. The sales, reserves and landbank provision figures for all aggregates in Cumbria (excluding sites within the Yorkshire Dales National Park boundary) are shown in the summary dashboard above. 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 summary chapter. With the exception of high and very high specification aggregates, which has stayed the same, sales for all primary aggregates have dropped slightly in 2022 compared to 2021. This has had a slight but not significant

impact on the 3-year and 10-year average sales used as a starting point for considering LAA provision rates.

- 1.4 As during the calendar year 2022 the minerals authority was Cumbria County Council, the data for sales, reserves and landbanks will be reported on a Cumbria-wide basis. This LAA will start to analyse the position for Cumberland Council and Westmorland and Furness Council separately to provide a baseline going forward for reporting on each minerals planning authority separately. This level of detail is not included within the Executive Summary. It is sufficient here to note that the majority of sand and gravel quarries (8 out of 11 in total) are located within Cumberland whilst a higher number of crushed rock quarries (15 out of 22 sites in total) are located within Westmorland and Furness.

Sand and gravel

- 1.5 Current permitted reserves of land-won sand and gravel for aggregate use (4.72Mt) are not sufficient to maintain the required landbank of at least 7 years throughout the CMWLP and LDLP plan periods (2030 and 2035). **The LAA provision will continue to be based on 3-year average sales figures (currently 0.8Mt) that equates to a landbank of 5.89 years that should run out in 2028.** 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 immediately as the landbank is already considered to be below the minimum 7 years at 31 December 2022.
- 1.6 This means that, based on 3-year average sales, a 7-year landbank cannot currently be demonstrated. To maintain the landbank based on the lower 10-year average sales (0.74Mt) will also require new reserves to come on stream immediately.
- 1.7 An additional 7.28Mt of sand and gravel reserve is required to maintain a landbank of a least 7 years throughout the CMWLP period (to 2030) based on 3-year average sales figures.

Crushed rock

- 1.8 Current permitted reserves of all crushed rock for aggregate use (111.09Mt) are more than sufficient to maintain the required landbank of at least 10 years throughout the CMWLP and LDLP plan periods. **The LAA provision will continue to be based on 10-year average sales (currently 2.77Mt) that equates to a land bank of 40.1 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.

- 1.9 **The LAA provision for sandstone and igneous rock (excluding high specification aggregates) will continue to be based on 10-year average sales (currently 0.34Mt) that equates to a land bank of 57.94 years.** In order to ensure permitted reserves for sandstone and igneous rock remain above the minimum 10 years required by the NPPF, new reserves will need to come on stream no later than 2069.
- 1.10 **The LAA provision for limestone alone (also excluding high specification aggregates) will continue to be based on 10-year average sales (currently 1.98Mt) that equates to a land bank of 38.53 years.** This is comparable to the last LAA 10-year average sales figure of 1.99Mt. This will be kept under review. Increased sales and firmer timescales on some of the major infrastructure projects planned for Cumbria 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 2050.

High specification aggregates

- 1.11 Current permitted reserves of high specification (HSA) and very high specification aggregates (VHSA) for use as roadstone is 15.1Mt. This is sufficient to maintain the required minimum 10 year landbank throughout the CMWLP and LDLP plan periods. **The LAA provision will continue to be based on 10-year average sales (currently 0.46Mt) that equates to a landbank of 32.83 years.** This provision rate is consistent with 0.47Mt in 2021 but below the higher levels of 0.57 Mt in 2017, 0.54Mt in 2018 and 0.52Mt in the 2019 LAA (all based on 10-year average sales). Based on 2022 data, this year the 3-year average sales figure is also 0.46Mt. 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.
- 1.12 This provision rate gives a landbank of 32.83 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.
- 1.13 Ghyll Scaur is the only operating quarry in England to produce the VHSA roadstone. This is a nationally important 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 place increased demand on the HSA and VHSA roadstone quarries within Cumbria. If 2022 sales are exceeded there may not be sufficient permitted reserve remaining at the end of the Plan period in 2030 to provide a minimum 10-year landbank for VHSA alone. Sales, reserves and future demand for VHSA will continue to be monitored closely in future LAAs, including having regard to any further studies that may be carried out on the supply and demand for these high specification aggregates nationally

Recycled and secondary aggregates

- 1.14 It is estimated that around 0.24Mt of recycled aggregate was available for use in 2022 from recycling of inert waste, including around 0.06Mt of railway track ballast. This is a slight drop from the amount estimated for 2021 but consistent with the figures for 2019 and 2020. In addition to the supply of recycled aggregate, there is a supply of secondary aggregate from slate waste from at least 3 of the slate quarries in Cumbria. Whilst these quarries remain active, slate waste continues to be available as a recognised source of alternative aggregate for Cumbria at this time.
- 1.15 Future supply of recycled aggregates will likely be linked to the amount of development and redevelopment taking place

Managing supply and demand

- 1.16 Cumbria has traditionally supplied far more aggregate than is needed for its own use and this trend continues.
- 1.17 Some of the planned infrastructure requirements within Cumbria (see *Appendix 1 – Other Relevant Local Information*) are now likely to reach construction stage within the next 5 years. Significant developments currently anticipated to commence within the next 5 years or so are the Carlisle Southern Link Road (work has commenced in 2023); the A66 dualling (DCO decision due March 2024), and the A595 Grizebeck Improvement Scheme (decision on funding expected early 2024), as well as some initial phases of the St. Cuthbert's Garden Village (subject to the granting of planning permission). Construction of the Carlisle Southern Link Road (CSLR) and the A66 dualling programme (including sections outside of Cumbria) has the potential to impact on demand for aggregates, in particular the HSA and VHSA roadstones, although it has been confirmed that high specification roadstone for the A66 project will be sourced from outside of Cumbria. Other road building/improvement programmes currently planned or underway across the UK will also impact on this demand.

- 1.18 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 online within the current Plan period could have an impact on the landbank position.
- 1.19 There are a number of highways schemes, mainly in the North East region, that are scheduled for construction within the next 5 years so it is likely that demand will increase for imports of HSA and VHSA roadstone from Cumbria as a result. Current indications are that export of aggregates, mainly crushed rock, from Cumbria to Durham and Northumberland are not significant, with the majority of their crushed rock requirements coming from within their own areas or from neighbouring North Yorkshire.
- 1.20 As a nationally important reserve, 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.
- 1.21 The potential for additional or accelerated road building programs coming forward as a result of the latest Network North proposals just announced by the Department for Transport (October 2023) could further impact on depletion of this resource. As some of the planned highways schemes in Cumbria progress, discussion with the Highways Agency will establish the quantities of aggregate required to deliver these schemes, when these amounts will be needed and where they will be sourced from. This will help to build up a greater understanding of the impact of major highways schemes on demand for aggregates within the sub-region of Cumbria and to understand which other projects are likely to create significant additional demand over and above the levels captured in previous sales figures.
- 1.22 Site Allocations have been made in the CMWLP that should provide sufficient reserve to maintain the minimum landbank required for sand and gravel, however there is no guarantee that applications will be forthcoming at all of these sites. Screening and Scoping Opinions have been submitted for extensions at Peel Place Quarry (located

within part of the Area of Search M15 on land adjacent Peel Place) and Cardewmires Quarry (utilising the whole of Area of Search M8 on land adjacent Cardewmires). If progressed and granted planning permission, these schemes combined would release 2.39Mt additional permitted reserve towards the landbank for sand and gravel.

- 1.23 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.
- 1.24 Site Allocations have been made in the CMWLP for safeguarding additional resource of HSA but no provision is made for VHSA. There is an area with potential for VHSA close to Ghyll Scaur however this lies within the Lake District National Park.
- 1.25 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. This will allow production capacity to be maintained. 10 of the crushed rock quarries have permissions due to expire in February 2042 (imposed by the Town and Country Planning (Minerals) Act 1981); 3 of these are limestone quarries and 1 is for HSA sandstone.
- 1.26 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.

Summary of Sales and Reserves data SAND AND GRAVEL	2022	2021	2020
Year end sales figures (million tonnes)	0.8	0.85	0.75
10-year average sales (million tonnes)	0.74	0.7	0.66
3-year average sales (million tonnes)	0.8	0.79	0.74
Permitted reserves of sand & gravel (million tonnes)	4.72	5.63	6.03
Landbank based on 10-year average sales (years)	6.37	8.04	9.14
Landbank based on 3-year average sales (years)	5.89	7.12	8.15
LAA provision	0.8	0.79	0.74
Landbank end date – based on LAA provision	Late 2028	Early 2029	Early 2029
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	-7.26 Mt (deficit) -2.10 years	-7.01Mt (deficit) -1.87 years	-6.55 Mt (deficit) - 1.85 yrs
Additional tonnage required to maintain landbank – based on LAA provision	7.28 Mt	7.01Mt	6.55 Mt

Summary of Sales and Reserves data ALL CRUSHED ROCK	2022	2021	2020
Year end sales figures (million tonnes)	2.66	2.86	2.59
10-year average sales (million tonnes)	2.77	2.80	2.80
3-year average sales (million tonnes)	2.7	2.82	2.80
Permitted reserves (million tonnes)	111.09	114.28	116.35
Landbank based on 10-year average sales (years)	40.10	40.81	41.55
Landbank based on 3-year average sales (years)	41.14	40.52	41.55
LAA provision	2.77	2.80	2.80
Landbank end date – based on LAA provision	Early 2062	Late 2062	Mid 2062
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	58.46 Mt (surplus) +31.10 years	61.08 Mt (surplus) +31.81 yrs	60.35 Mt (surplus) + 31.55 yrs
Additional tonnage required to maintain landbank – based on LAA provision	-	-	-

Summary of Sales and Reserves data LIMESTONE	2022	2021	2020
Year end sales figures (million tonnes)	1.91	2.1	1.89
10-year average sales (million tonnes)	1.98	1.99	1.95
3-year average sales (million tonnes)	1.97	2.05	1.97
Permitted reserves (million tonnes)	76.28	78.72	80.12
Landbank based on 10-year average sales (years)	38.53	39.6	41.08
Landbank based on 3-year average sales (years)	38.72	38.4	40.67
LAA provision	1.98	1.99	1.95
Landbank end date – based on LAA provision	Mid 2060	Mid 2061	Early 2062
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	38.66 Mt (surplus) +29.53 yrs	40.91Mt (surplus) +30.56 yrs	41.12 Mt (surplus) +31.09 yrs
Additional tonnage required to maintain landbank – based on LAA provision	-	-	-

Summary of Sales and Reserves data HIGH SPECIFICATION ROADSTONE (HSA & VHSA)	2022	2021	2020
Year end sales figures (million tonnes)	0.46	0.46	0.45
10-year average sales (million tonnes)	0.46	0.47	0.48
3-year average sales (million tonnes)	0.46	0.49	0.51
Permitted reserves (million tonnes)	15.1	15.62	16.15
Landbank based on 10-year average sales (years)	32.83	33.2	33.64
Landbank based on 3-year average sales (years)	32.83	31.87	31.66
LAA provision	0.46	0.47	0.48
Landbank end date – based on LAA provision	Late 2054	Early 2055	Mid 2054
Reserve and Landbank remaining at end of Plan period (2030) – based on LAA provision	6.36 Mt (surplus) + 23.83 yrs	6.69 Mt (surplus) +24.22 yrs	6.55 Mt (surplus) + 23.64 yrs
Additional tonnage required to maintain landbank – based on LAA provision	-	-	-

2.0 Introduction

- 2.1 Mineral planning authorities should plan for a steady and adequate supply of aggregates. It is a requirement of the National Planning Policy Framework (NPPF) to produce an annual Local Aggregates Assessment (LAA), the purpose of which is the annual assessment of the demand for, and supply of, aggregates in a mineral planning authority's area. This LAA is prepared jointly by Cumberland Council (CC), Westmorland and Furness Council (WFC) and the Lake District National Park Authority (LDNPA). It reports on the data for 2022 as provided by the minerals operators in their survey returns.
- 2.2 The LAA is used to inform the preparation, monitoring and review of each authority's minerals planning policies. The Cumbria Minerals and Waste Local Plan (CMWLP) was adopted by Cumbria County Council in September 2017 and covers a Plan period of 2015-2030. Following local government reorganization (LGR) in April 2023, Cumberland Council and Westmorland and Furness Council will each begin to prepare a new Local Plan for their administrative areas. As unitary authorities, the new councils now have responsibility for minerals planning policy and it is envisaged this will be incorporated into the new Local Plans. In the meantime, the adopted CMWLP remains in force as the relevant minerals planning policy across both council areas. The Lake District National Park Authority adopted the Lake District Local Plan (which includes minerals policies) in May 2021. This covers a Plan period of 2020 – 2035.
- 2.3 As set out in the Planning Practice Guidance (PPG), the LAA covers three main elements:
- i) A forecast of the demand for aggregates (based on average annual sales figure and other relevant information)
 - ii) An analysis of all aggregate supply options (based on permitted reserves)
 - iii) An assessment of the balance between demand and supply
- 2.4 As during the calendar year 2022 the minerals authority was Cumbria County Council, the data for sales, reserves and landbanks will be reported on a Cumbria-wide basis. This LAA will start to analyse the position for Cumberland Council and Westmorland and Furness Council separately to provide a baseline going forward for reporting on each minerals planning authority separately. However, due to the strategic nature of minerals planning, it is envisaged that the LAA will continue to be produced jointly between the two

councils, along with the LDNPA which is a minerals planning authority in its own right and sits within both council areas.

- 2.5 As a sub-region, Cumbria is self-sufficient in aggregates and also supplies other markets, especially in the North West and North East. There are 11 sand and gravel quarries (8 located within Cumberland and 3 within Westmorland and Furness). None of the sand and gravel quarries are located within the Lake District National Park. Additional sand and gravel reserve is potentially available from marine dredged aggregates that are landed at Barrow Port. Whilst there have been no landings recorded since 2018, the Crown Estate has confirmed there is vessel capacity and licensed material in the region to re-establish supply if market conditions provide sufficient demand.
- 2.6 Crushed rock resource in Cumbria is predominantly limestone. Igneous rock includes granite at Shap Pink and Shap Blue and the volcanic tuff at Ghyll Scaur. There are several sandstone quarries (including some greywacke) which provide mainly building stone although some produce sandstone for aggregate use also.
- 2.7 There are 22 crushed rock quarries (7 located within Cumberland and 15 within Westmorland and Furness). Two of these (Shap Beck and Shap Blue) are located partly within the Lake District National Park and Shap Pink is located wholly within the Lake District National Park. As well as producing aggregates, some of the limestone quarries also supply industrial markets, mostly for the burnt lime. 3 of the quarries produce the high specification aggregates (HSA) and very high specification aggregates (VHSA) which are essential for the building and maintenance of roads, especially motorways, because of their high or very high skid-resistance properties. They have a national and regional market and are a nationally significant resource. Only one of these quarries produces the VHSA roadstone (Ghyll Scaur, located in Cumberland) and is the only quarry in England to produce VHSA.
- 2.8 There are around 20 building stone and slate quarries currently operating across the sub-region. Six are located in Cumberland and 14 within Westmorland and Furness. Seven of these are located within the Lake District National Park, including all three slate quarries. Two stone quarries are located within the Yorkshire Dales National Park (Rooks and Pickering) so are not reported in this LAA.
- 2.9 Production of secondary and recycled aggregates across the sub-region makes a valuable contribution to resource efficiency and the protection of the environment from unnecessary primary extraction. There are a number of processing plants across the

sub-region of Cumbria that produce alternative aggregates from quarry waste, recycled or re-used materials. Some of these are located on quarry sites which also import inert waste for recycling; others are located elsewhere, including near industrial sites or landfill facilities.

What are aggregates?

- 2.10 Aggregates are the basic raw materials used by the construction industry. Without them, houses, schools, hospitals, factories, offices and roads could not be built or maintained. They can be split into two main groups:-
- 2.11 **Primary aggregates.** These are crushed rock and sand and gravel, which are extracted directly from the ground at quarries (land-won aggregates) or dredged from the sea (marine-dredged aggregates). Depending on their geological source, primary aggregates can have different properties or characteristics that can be important for their end-use. Important examples in Cumbria are the two types of crushed rock that are used for surfacing motorways and main roads, referred to as High Specification Aggregates (HSA) and Very High Specification Aggregates (VHSA) because of their high or very high skid resistance properties.
- 2.12 **Alternative aggregates.** These are alternatives to primary aggregates and can be split into two sub-groups. The NPPF requires that planning policies should, as far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials. **Recycled aggregates** are produced by recycling construction, demolition, excavation and other wastes. They can include crushed concrete, bricks and glass, old railway track ballast and the surface layers removed from roads during roadworks (road planings). **Secondary aggregates** are a by-product of mining or quarrying operations or of other industrial processes; they can include colliery spoil, china clay waste, incinerator ash and pulverised fuel ash from power stations, industrial glass waste, ceramic waste, old tyres, slate waste, spent foundry sand and old blast furnace slag banks.

The Managed Aggregates Supply System

- 2.13 Since the 1970s, there has been a national **Managed Aggregates Supply System (MASS)** set up to ensure a steady and adequate supply of aggregates, taking into account the significant geographical imbalances in the availability of suitable aggregates and the areas where they are most needed. It requires mineral planning authorities that have

adequate resources of aggregates to make an appropriate contribution to national as well as local supply, while making due allowance for the need to control any environmental damage to an acceptable level. The North West, as a whole, meets only around half of its aggregates consumption from within the region. Cumbria helps to meet the needs of other parts of the region but much of the shortfall is met from other regions - for example, quarries in Derbyshire and North Wales supply Greater Manchester due to their proximity.

2.14 Originally, the MASS was based on national estimates of need for aggregates projected forward for 15 years, which were then apportioned to regions. The NPPF (2012) brought in the requirement for mineral planning authorities to produce their own Local Aggregates Assessment each year. However, they still need to take into account the published national and regional guidelines for aggregates provision.

2.15 The MASS is undertaken through national, sub-national and local partners working together to deliver a steady and adequate supply of aggregates:

- at the local level, mineral planning authorities must prepare Local Aggregate Assessments to assess the demand for and supply of aggregates in their area;
- at the sub-national level, mineral planning authorities belong to and are supported by Aggregate Working Parties who produce fit-for-purpose and comprehensive data on aggregates covering specific geographical areas;
- at the national level, the National Aggregate Co-ordinating Group should monitor the overall provision of aggregates in England.

Sub-regional apportionment

2.16 The Government sets national and regional apportionment figures for a 15 year period. The current figures are set in the National and Sub-National Guidelines for Aggregates Provision in England (2005- 2020) which was last updated in 2009. From this the regional Aggregate Working Party must set a **sub-regional apportionment figure** for each of the mineral planning authorities in that region.

2.17 Cumbria, including the area administered by the Lake District National Park Authority, is a member of the North West Aggregates Working Party (NWAWP) and constitutes one of the four sub-regions in the North West. In 2011 the NWAWP agreed the sub-regional apportionment figures. For Cumbria this was set at 4.1Mt for crushed rock and 0.7Mt for sand and gravel.

2.18 Whilst sand and gravel sales in Cumbria have met or exceeded the apportionment figure of 0.7Mt consistently since 2015 onwards, sales of crushed rock have never come close to the apportionment figure for crushed rock of 4.1Mt. Apart from recording 3.3Mt in 2014 and 3.01Mt in 2018, sales of crushed rock have remained consistently below 3.0Mt. This is not due to a lack of supply but simply reflects the actual demand. There is a call nationally for these guidelines to be reviewed as they must now be considered out-of-date.

Landbanks

2.19 A key additional tool that underpins the working of the MASS is the **aggregate landbank**. This is principally a monitoring tool and is a key part of the evidence base that mineral planning authorities take into account when considering whether any change to existing policy approach is required during review of their Local Plan. Calculating the landbank is an integral part of the reporting requirements for producing the Local Aggregates Assessment.

2.20 Separate landbanks are required for crushed rock (at least 10 years) and sand and gravel (at least 7 years). The difference in time periods is to some extent because these two types of aggregate serve different markets and have different site infrastructure requirements. For example, quarries producing crushed rock will need a longer security of reserves to justify capital investment in crushing equipment.

2.21 Calculation of landbanks should be undertaken annually. The length of a landbank is typically calculated from the sum in tonnes of all permitted reserves for which valid planning permissions are extant, divided by the annual rate of future demand (typically the average annual sales figure over 10 years) based on the latest annual Local Aggregate Assessment. Other relevant information (such as planned infrastructure requirements) may also be taken into account when considering whether a different annual sales figure should be used to calculate the landbank going forward. Permitted reserves include currently non-working sites, but exclude those sites where mineral working cannot take place until there has been a review of the planning conditions attached to their planning permission.

2.22 The NPPF¹ recommends that, as far as is practical, landbanks for non-energy minerals should be maintained from outside of designated areas such as National Parks and Areas of Outstanding Natural Beauty (AONBs). Cumbria contains, in whole or in part, two National Parks (Lake District; Yorkshire Dales) and three AONBs (Solway Coast; Arnsdale and Silverdale; North Pennines). There is also a World Heritage Site (Frontiers of the Roman Empire: Hadrian's Wall) across the north of the county, around 580 Scheduled

¹ NPPF (December 2023) Section 17 Facilitating the sustainable use of Minerals – para. 217

Monuments and just under 100 Conservation Areas, all outside of the Lake District National Park. The Lake District National Park itself is now a World Heritage Site.

- 2.23 The landbanks that have been calculated for this LAA, do include reserves located in the Lake District National Park - for crushed rock used as aggregate from Shap Beck and Shap Blue quarries, both on the very edge of the Park. Rooks Quarry in the Yorkshire Dales National Park is now incorporated in to its own LAA work. It provides limestone off cuts for building stone so does not impact on Cumbria's landbank position. There are also landbank reserves located in two of the AONBs – at Sandside (Arnside and Silverdale AONB), Hartley and Helbeck quarries (North Pennines AONB).
- 2.24 Another requirement of the NPPF is that mineral planning authorities should ensure that competition is not stifled by large landbanks of permitted reserves bound up in very few sites; by inference, this means landbanks held by few mineral companies. In Cumbria, the control of reserves is not limited to a very few sites or very few operators.

Information used to produce the LAA

2.25 The LAA should be based on a rolling average of 10 years sales data as a starting point but other relevant local information must also be taken into account. This could include planned infrastructure projects, levels of projected housing growth, and assessment of the 3 year average sales figures to identify any recent trends in demand. The most significant information used to prepare this LAA is set out below:-

- the Annual Monitoring Survey forms - sent to all mineral operators in Cumbria for primary land won aggregates and for secondary/recycled aggregates; this survey collects sales data for each type of aggregate for the previous calendar year and also indicates the permitted reserves at year end;²
- data and information on marine dredged aggregates, held by the Crown Estate;
- local information, which includes, but is not restricted to:
 - data provided in planning applications
 - liaison with minerals operators

² The data gathered on the survey forms is confidential and an officer is nominated to receive the data provided by the operators. Itemised sales and reserves figures are not reported – they are collated so that individual figures and quarries cannot be identified

- levels of planned construction and house building in Cumbria
 - the economic strategy of the Local Enterprise Partnership
 - the NAWWP annual report
 - the four-yearly aggregate minerals survey carried out by the British Geological Survey for MHCLG – AM2019.
- 2.26 This LAA incorporates data gathered from the Annual Monitoring Survey forms for 2022, issued by Cumbria County Council as minerals planning authority on behalf of the AWP. Where operators have not provided any returns we have calculated their sales and reserves figure based on previous returns.
- 2.27 Operators who have not provided a survey return were advised by the mineral planning authority of the latest sales and reserve figures being reported for their site based on estimates and given the opportunity to respond prior to the inclusion of these estimates in the landbank calculations for this LAA.
- 2.28 It has also been necessary to take account of the HSA roadstone quarries in the Yorkshire Dales National Park as any reduced production from within the National Park could have an impact on the HSA and VHSA roadstone quarries within neighbouring Cumbria.
- 2.29 The assessment of demand and supply is discussed for each aggregate type in the following chapters, with an Executive Summary setting out the overall position at the end of 2022. Further details on relevant local information such as planned infrastructure projects and growth forecasts are included in the Appendices.
- 2.30 This published version of the LAA has been prepared taking into account comments received following consultation with NAWWP members on the initial draft report and was ratified by the NW AWP in October 2024.

3.0 Sand and gravel

Demand for sand and gravel (sales)

3.1 Sales of land-won sand and gravel across Cumbria in 2022 was **0.8Mt**, compared to 0.85Mt in 2021 and 0.75Mt in 2020. Historic sales of land-won sand and gravel are set out below. Sales of marine-dredged aggregates have been reported in previous LAAs however there have been zero tonnes landed since 2018 and this remains the case for 2022. The sales split between the two new unitary authority areas is shown in the 2022 data to provide a baseline going forward; during 2022 the minerals planning authority was Cumbria County Council.

Land-won sand and gravel	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Sales (Mt)	0.48	0.68	0.71	0.81	0.79	0.71	0.77	0.75	0.85	0.8
<i>Cumberland Council</i>										<i>0.66</i>
<i>Westmorland and Furness Council</i>										<i>0.14</i>

3.2 The 2022 sales figures give a three-year average sales figure of 0.8Mt and a 10-year average sales figure of 0.74Mt. Sand and gravel sales across Cumbria have been consistently higher than the sub-regional apportionment of 0.7Mt since 2015.

Supply of sand and gravel (reserves)

3.3 Permitted reserves of all land-won sand and gravel across Cumbria at the end of 2022 were 4.89Mt. Of this amount, 0.17Mt was identified as non-aggregate reserve leaving **4.72Mt available for aggregate use**. Historic land-won sand and gravel aggregate reserves are set out below. Permitted reserves have reduced by half over the past 10 years. The fact that reserves have not been replenished has an impact on the landbank years remaining which, as reported below, is now at a critical point. Permitted reserve figures are not held for marine-dredged aggregate which supplements rather than directly contributes to the landbank for sand and gravel. As noted above, there has been zero tonnes of marine-dredged aggregate landed within Cumbria (at Barrow Port) since 2018 so this is not currently supplementing the available landbank for sand and gravel.

Land-won sand and gravel	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Permitted reserves (Mt)	9.89	9.2	8.77	7.77	7.38	7.26	6.53	6.03	5.63	4.72
<i>Cumberland Council</i>										3.04
<i>Westmorland and Furness Council</i>										1.68

3.4 There are 11 sand and gravel quarries across the sub-region of Cumbria; 10 of these were active during 2022. Location of the sand and gravel quarries and permitted reserves attributed to them (cumulatively) across the two new unitary authorities is set out in the table below for context. None of the sand and gravel quarries are located within the Lake District National Park.

Cumberland Council	Westmorland and Furness Council
High House	Roosecote
Faugh No.1 – <i>Inactive</i>	Bonnie Mount
Low Gelt	Low Plains
Kirkhouse	
Cardewmires	
Overby	
Peel Place	
Faugh No.2 (Esk Quarry)	
Permitted reserves = 3.04Mt	Permitted reserves = 1.68Mt

3.5 During 2022, no permissions were granted for additional sand and gravel reserves. An application for lateral extension at **Cardewmires** was submitted in November 2022 for extraction of an additional 0.1Mt over a 12 month period. This was granted permission in February 2023.

3.6 Planning permission was granted for a time extension at **Kirkhouse Quarry** until 2033. An application at **Faugh 2 (Esk Quarry)** for time extension until 2032 (for continued sand and gravel extraction and also for recycled aggregate production) was submitted in 2022. This was granted permission in February 2023, subject to completion of a S106 Legal Agreement.

3.7 Currently planning permissions at the following sites are due to expire before the end of the CMLPW period (2030). As of 31 December 2022, together these sites hold 1.66Mt of Cumbria's permitted sand and gravel reserve (around 35%). Policy DC12 of the CMWLP

would support time extensions on existing sites where there is evidence of a need for that specific mineral.

Site	Permission end date
Faugh 1	2023
Peel Place	2025
Cardewmires	2025
Low Gelt	2026
Overby	2026
Roosecote	2029

Managing supply and demand – LAA provision figures

- 3.8 Based on 2022 sales, the 10-year average sales figure of 0.74Mt equates to a current landbank of 6.37 years that should last until 2029 but will have fallen below the minimum requirement of 7 years by 2022. Using the 3-year average sales figure of 0.8Mt equates to a landbank of 5.89 years that should last until 2028 but will have fallen below the minimum requirement of 7 years by 2021.
- 3.9 Under either scenario this means that Cumbria as a sub-region cannot currently demonstrate a landbank of at least 7 years as required by the NPPF.
- 3.10 Previous LAAs have set the provision rate based on the higher 3-year average sales and it is considered appropriate to continue that in this LAA. Looking ahead, both new councils will have aspirations for growth and there are existing housing figure commitments and major infrastructure projects scheduled within each area. Further details on assessment of future demand for aggregates across Cumbria is set out in *Appendix 1 – Other Relevant Local Information*.
- 3.11 **The 2023 LAA will continue to base the provision rate on the 3-year average – currently 0.8Mt. This is higher than the regional apportionment figure of 0.7Mt but acknowledges the potential impact of planned housing and infrastructure delivery over the next 15 years.** Using this provision figure the existing landbank would run out in 2028. **This means at present Cumbria cannot demonstrate a minimum 7 year landbank of permitted reserves for sand and gravel.** To maintain a landbank of at least 7 years, as required by the NPPF, throughout the CWMLP period (i.e. until at least the end of 2037) would require a minimum of **7.28Mt** additional sand and gravel to be released. New reserves need to come on stream immediately as the landbank is already considered to be below the minimum 7 years at 31 December 2022.

- 3.12 If the landbank position were to be calculated separately for Cumberland Council and Westmorland and Furness Council in future years, based on the 2022 figures this would indicate a landbank of 4.61 years for Cumberland and 12.14 years for Westmorland and Furness. However, simply dividing the permitted reserve available within each council area by the sales recorded in each area does not accurately represent supply and demand across the sub-region of Cumbria. Looking at 2022 data, Cumberland Council holds around two-thirds of the permitted reserves (64%) and generates 83% of the sales; Westmorland and Furness holds 36% of the permitted reserve and generates only 17% of the sales. Whilst sales, reserves and landbanks will be calculated separately for each minerals planning authority for the purpose of LAA reporting it is considered that supply and demand for sand and gravel will be interdependent between the two councils and the required landbank should be planned for jointly.
- 3.13 The CMWLP identifies the following site allocations for sand and gravel. With the exception of Kirkhouse quarry, these are all within the west and south of Cumbria where there is a particular shortage of sand and gravel aggregate supply compared to the rest of the county.

Cumberland Council	Westmorland and Furness Council
M6 Area of Search – land between Overby and High House quarries, Abbeytown	M27 Preferred Area – land adjacent Roosecote quarry, Barrow-in-Furness
M8 Area of Search- land adjacent Cardewmires Quarry, Dalston	M12 Area of Search – land near Roosecote quarry
M11 Area of Search – land adjacent Kirkhouse quarry, Brampton	
M15 Area of Search – land adjacent Peel Place quarry, Gosforth	

- 3.14 These site allocations could be roughly estimated as containing 14Mt of resources so there is potential for any required shortfall to be met, providing a minimum 7-year landbank until the end of the Plan period. However, the mineral resource in these areas has not been fully evaluated or deemed commercially viable, so no specific amount of reserve has been confirmed. It is by no means certain that planning applications would be submitted, or approved, on these sites, or that time extensions will be sought on all the current permissions due to expire within the Plan period.
- 3.15 There has been recent interest in pursuing some of these site allocations. A Screening Opinion was submitted in December 2022 for a lateral extension at **Peel Place** quarry

which is located within part of Area of Search M15. The proposal is for extraction of 0.69Mt of sand and gravel over a period of 15 – 17 years. A Screening Opinion was submitted in December 2022 for a southern extension at **Cardewmires** quarry utilizing the whole of Area of Search M8, estimated to yield 1.7Mt for extraction over a period of 14 -17 years (based on extraction rates of between 100, 000 and 120,000 tonnes per annum). Scoping Opinions have now been submitted for both these proposals (in July 2023 and September 2023). If progressed, they could release 2.39Mt additional permitted reserve towards the landbank for sand and gravel. Using the December 2022 data as a baseline, if this additional 2.39Mt was added to permitted reserves this would give a landbank of 8.88 years which would run out in 2031. Further new reserves would need to come on stream by 2024 to maintain a minimum 7-year landbank throughout the rest of the Plan period. However, as planning applications have not yet been submitted, by the time permission is granted the landbank will have fallen further so it is likely to still be below or only just at the minimum 7 years.

Marine aggregates

- 3.16 Marine-dredged sand and gravel is also considered a primary aggregate. In Cumbria, marine-dredged aggregates are landed at Barrow port and have previously been taken from the licensed area held by Tarmac Marine Dredging Ltd (331), approximately twenty miles off the coast of Barrow. In 2009 around 23,000 tonnes landed at Barrow docks. This amount declined steadily to around 8,000 tonnes in 2017 and there has been zero tonnes landed since 2018 to this date. There is no longer a licensed working area in this location. In addition there will be small amounts provided by channel maintenance activities at harbours, such as Workington and Maryport. These aggregates are often used very locally, as they are landed by a local operator. Currently figures on these additional dredging activities are not recorded and monitored in the LAA.
- 3.17 In 2022, marine-dredged aggregates contributed to 27% (14Mt) of the total construction need for sand and gravel.³ The quantities of marine-dredged aggregates that are landed in the North West have been falling over several years and have always been less than the authorized extraction rates. In 2022, the total permitted extraction for marine aggregates in the North West region was 0.7Mt. The total landings recorded (at Liverpool Wharves and Penrhyn) was 217,884 tonnes, compared to 257,360 tonnes in

³ Profile of the UK Minera Products Industry 2023 (Mineral Products Association)

2021. An application for another licence in the North West has been submitted and if approved could increase the permitted tonnage by 0.5Mt per annum.

- 3.18 One of the key issues relating to supply is the economic viability of the marine resource compared to land-won. However, with the pressure on land-won resources there is the potential that marine aggregates may play an increasingly important role. Discussion with industry in 2021 indicates that there is a plentiful supply of good quality marine aggregate in the North West, including local to Cumbria, that could meet future demand for sand and gravel. However, the issue is logistics of getting it to market. This is influenced by a number of factors including – the cost of chartering a vessel without sufficient market demand for the product; the cost of renting land/infrastructure at ports; availability of land-based infrastructure such as wharves/landing points and, in particular, sufficient rail capacity to get the product to market. When road transportation is the only option this significantly increases costs. Failure to safeguard key sites has also led to the loss of infrastructure in some areas. Whilst marine aggregate remains more expensive to supply than available land-won resource it will not be the preferred option for the market.
- 3.19 Like other minerals planning authorities in the North West, Cumbria does not currently have enough permitted reserve of land-won sand and gravel to maintain sufficient supply throughout the CMWLP period. Noting the potential for marine aggregates to contribute to this shortfall, CMWLP policy SP10 states that planning permission will be granted for developments at appropriate locations that would enable increased use of marine-dredged aggregates (subject to being environmentally acceptable). Policy SAP5 also safeguards existing and potential railheads and wharves.

Summary – sand and gravel

Current permitted reserves of land-won sand and gravel for aggregate use (4.72Mt) are not sufficient to maintain the required at least 7 year landbank throughout the CMWLP period (2015-2030). Based on 3-year average sales figures (0.8Mt) the available landbank would run out in 2028. This means at present Cumbria cannot demonstrate a 7 year minimum landbank of permitted reserves for sand and gravel based on 3-year average sales.

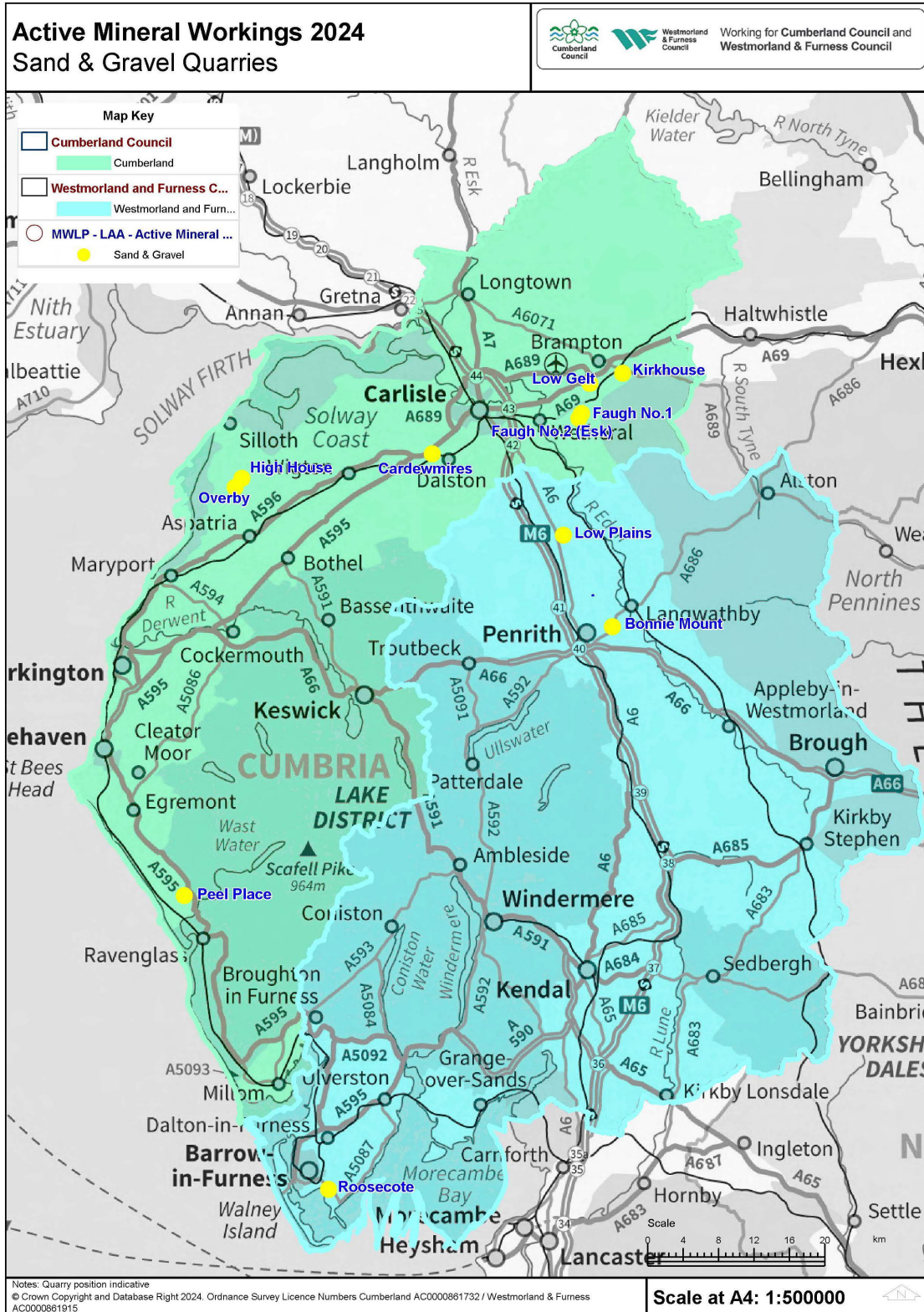
A minimum of 7.28 Mt additional of sand and gravel reserve is required to maintain a landbank of at least 7 years throughout the CMWLP period, based on 3-year average sales.

A number of permissions are due to expire before the end of the CMWLP plan period. Policy DC12 of the CMWLP would support approval of both time and physical extensions to existing sites where there is a need for that specific mineral.

Site Allocations have been made in the adopted CMWLP for Areas of Search/Preferred Areas for sand and gravel. If progressed, these could provide sufficient reserve to satisfy pre-recession sales levels and provide an at least 7 year land bank at the end of the Plan period. As of December 2022 there are 3 proposals for sand and gravel extraction under consideration (2 within Site Allocation areas) which, if planning permission is secured, could deliver a total of 2.49Mt additional reserve towards the landbank for sand and gravel.

There is potential for marine-dredged sand and gravel to make a greater contribution to the permitted reserve figures in Cumbria. There is plentiful supply of good quality resource but industry is facing a number of issues around the logistics of getting the product to market which means it is currently not as economically viable as land-won sand and gravel.

Sand & gravel quarries map



4.0 Crushed rock

Demand for crushed rock (sales)

4.1 Sales of crushed rock for aggregate use (excluding slate, building stone and other non-aggregate sales) across Cumbria in 2022 was **2.66Mt**, compared to 2.86Mt in 2021 and 2.59Mt in 2020. Historic sales of crushed rock are set out below. The sales split between the two new unitary authority areas is shown in the 2022 data to provide a baseline going forward; during 2022 the minerals planning authority was Cumbria County Council. For reasons of confidentiality the sales figures for HSA/VHSA cannot be reported as split between the two new councils as Cumberland Council only has one quarry providing this aggregate (Ghyll Scaur).

Crushed rock sales for aggregate use (Mt)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Limestone	1.62	1.9	2.52	1.92	1.78	1.99	2.16	1.89	2.1	1.91
<i>Cumberland Council</i>										<i>0.71</i>
<i>Westmorland and Furness Council</i>										<i>1.2</i>
Sandstone and Igneous (excluding HSA)	0.37	0.3	0.36	0.49	0.41	0.31	0.28	0.25	0.3	0.29
<i>Cumberland Council</i>										<i>0</i>
<i>Westmorland Council</i>										<i>0.29</i>
High specification aggregate (HSA)	0.41	0.38	0.42	0.48	0.43	0.52	0.57	0.45	0.46	0.46
Total crushed rock sales	2.4	2.58	3.3	2.89	2.61	2.82	3.01	2.59	2.86	2.66
<i>Cumberland Council</i>										<i>1.00</i>
<i>Westmorland Council</i>										<i>1.66</i>

4.2 In 2022, the 10-year average sales for all crushed rock was 2.77Mt (compared to 2.8Mt in 2021) and the 3-year average was 2.70Mt (compared to 2.82Mt in 2021). Sales figures for crushed rock have consistently been below the sub-regional apportionment set for Cumbria of 4.1Mt.

Supply of crushed rock (reserves)

4.3 Permitted reserves of all crushed rock across Cumbria at the end of 2022 were 119.62Mt. Of this amount, 8.53Mt (7.1%) was identified as non-aggregate reserve

leaving **111.09Mt available for aggregate use**. Historic crushed rock aggregate reserves are set out below.

Crushed rock – permitted reserves (Mt)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Limestone	99.17	96.26	97.9	84.26	81.78	81.94	77.08	80.10	78.72	76.28 ⁴
<i>Cumberland Council</i>										20.94
<i>Westmorland and Furness Council</i>										55.35
Sandstone and Igneous rock (excluding HSA/VHSA)	10.33	29.82	29.5	29.00	29.01	22.84	22.93	20.08	19.95	19.7
<i>Cumberland Council</i>										0
<i>Westmorland and Furness Council</i>										19.7
High specification aggregate (HSA/VHSA)	11.43	10.98	17.22	16.74	16.56	16.11	15.50	16.15	15.62	15.10
<i>Cumberland Council</i>										5.85
<i>Westmorland and Furness Council</i>										9.25
Total reserves	121.03	137.06	144.63	130.00	127.35	120.88	115.51	116.35	114.28	111.09⁵
<i>Cumberland Council</i>										26.78
<i>Westmorland and Furness Council</i>										84.30

4.4 There are 22 crushed rock quarries operating across the sub-region of Cumbria and providing aggregate; 14 of these were active during 2022. In addition, Roan Edge Landfill and Recycling site has permission to extract HSA sandstone (0.3Mt) once

⁴ Combined figures do not tally due to rounding to 2 decimal points. Combined figure is accurately reported at 2 decimal points.

⁵ As above- cumulative effect of rounding figures to 2 decimal points

minerals rights have been obtained. Location of the crushed rock quarries and permitted reserves attributed to them (cumulatively) across the two new unitary authorities is set out in the table below for context.

Cumberland Council	Westmorland and Furness Council
Ghyll Scaur – Igneous rock (volcanic tuff)	Shap Blue- Igneous rock (granite) (LDNPA)
Eskett & Rowrah – Limestone	Shap Pink – Igneous rock (granite) (LDNPA)
Moota – Limestone	Holme Park – Limestone
Silvertop – Limestone	Hartley- Limestone – Inactive
Snowhill No.1 – Limestone – Inactive	Shap Beck- Limestone
Tendley – Limestone and Sandstone	Flusco (Silverfields) – Limestone - Inactive
Snowhill No.2- Sandstone – Inactive	Sandside – Limestone
	Stainton – Limestone – Inactive
	Goldmire – Limestone
	Kendal Fell – Limestone (LDNPA)
	Shap Fell (Hardendale) – Limestone – Inactive
	Holmescales – Sandstone/Greywacke
	Roan Edge – Sandstone
	Roan Edge Landfill- Sandstone – Inactive
	Helbeck – Limestone - Inactive
Permitted reserves = 26.78Mt	Permitted reserves = 84.30Mt

- 4.5 During 2022, no permissions were granted for additional crushed rock reserves. Planning permission for **Snowhill Quarry 1** expired in May 2022 with 110,000 tonnes of limestone reserve remaining, mainly for building stone. An application for time extension until 2033 was approved in October 2022. Planning permission was also granted during 2022 for time extensions at 3 other building stone and slate quarries.
- 4.6 Currently planning permissions at the following sites are due to expire before the end of the CMWLP period (2030). As the permissions at Snowhill No.2 and Shapfell have expired and not been renewed their remaining reserves (estimated to be around 0.05Mt) are no longer included in the total permitted reserves for the purpose of calculating landbanks. As of 31 December 2022, the remaining two sites hold 4.44Mt of Cumbria’s permitted crushed rock reserve (approximately 4%). Policy DC12 of the CMWLP would support time extensions on existing sites where there is evidence of a need for that specific mineral.

Site	Permission end date
Snowhill Quarry 2 – sandstone	2020

Site	Permission end date
Sandside – limestone	2029
Shapfell Quarry – limestone	2018
Tendley Quarry – limestone	2029

- 4.7 Some quarries are located in constrained sites due to being designated for their ecological or landscape value, which could impact on further extraction of reserves – **Holme Park** is located in a very sensitive area within a National Nature Reserve and SSSI in the centre of the quarry, and there are several surrounding Limestone Pavement Orders. **Sandside** is situated within the Arnside and Sliverdale AONB to which great weight is given to conserving and enhancing landscape and scenic beauty. Within such areas, national planning policy states that permission should be refused for major development, other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Both these quarries contain limestone reserve.
- 4.8 There may be issues with two other crushed rock quarries (also limestone), which have the potential to impact on the landbank. At **Eskett & Rowrah** quarries that part of the quarry known as Eskett is almost worked out and the operator intends to move into that part known as Rowrah in order to extract the reserves located there. However, there is a substantial amount of water in the Rowrah area and, if an environmentally acceptable solution for its dewatering is not found, the reserves could be lost (estimated to be 16.75Mt at the end of 2022). **Kendal Fell** quarry has in the past been subject of a master planning exercise although no recent proposals for an alternative use have been put forward. Redevelopment of this site would potentially sterilize the resource, which remains in a Mineral Safeguarding Area. Prior extraction could be considered if development of the site was likely to result in an unacceptable loss of the available limestone resource within the sub-region of Cumbria (estimated to be 1.6Mt at the end of 2022). Planning permission has recently been granted for a secondary aggregate production facility on this site.
- 4.9 A number of crushed rock quarries (10 out of the 22 operating) have permissions which expire automatically in February 2042 as a result of the Town and Country Planning (Minerals) Act 1981 setting an end date of 21 February 2042 on all historic planning permissions for mineral working which were granted permission before 22nd February 1982 without a specific end date. Seven of the quarries affected are limestone; one is HSA sandstone and two are sandstone (four slate quarries in Cumbria are affected by

this provision as well as a number of building stone quarries; none of the sand and gravel quarries are affected). Current policies in the CMWLP would support applications for an extension of time on their own merits, including taking into account whether there is evidence of need for the mineral. Two of the crushed rock quarries (both igneous sandstone) have their extraction area within the Lake District National Park. Current policy in the Lake District Local Plan would support applications for time extension (but not a physical extension) for general aggregate extraction where proposals can demonstrate sensitive restoration and extensions to existing sites could be supported for high purity limestone extraction where this meets and identified national need. Applications for building stone and slate extraction are supported in principle where there is a need identified.

Managing supply and demand – LAA provision figures

- 4.10 Based on 2022 sales, the 10-year average sales figure of 2.77Mt for all crushed rock gives a landbank of 40.1 years that would last until 2062. To maintain a landbank of at least 10 years, as required by the NPPF, new reserves would need to come on stream by no later than 2052.
- 4.11 **Provision for all crushed rock will continue to be based on the 10-year averages sales level (2.77Mt).** As the current landbank is substantial it is considered reasonable to maintain provision based on the 10-year average, noting that 2022 sales and therefore the 3-year average sales also are lower at 2.66Mt for 2022 compared to 2.86Mt in 2021.
- 4.12 **Provision for all sandstone and igneous rock will continue to be based on the 10-year average sales level (0.79Mt).** This is slightly lower than last year's 10-year average of 0.81Mt and equates to a current landbank of 44 years that should last until 2066. To maintain a landbank of at least 10 years, as required by the NPPF, new reserves would need to come on stream by no later than 2056.
- 4.13 **Provision for sandstone and igneous rock (without VHSA/HSA) will continue to be based on the 10-year average sales level (0.34Mt).** This is the same as last year's 10-year average figure and now equates to a landbank of 57.9 years that should last until 2079. To maintain a landbank of at least 10 years, as required by the NPPF, new reserves would need to come on stream by no later than 2069.
- 4.14 Due to the substantial landbanks available, which should extend well beyond the Plan period, it is not considered necessary to consider any further scenarios for sandstone and igneous rock (excluding higher specification aggregates) or for the provision of

crushed rock generally. Assessment of VHSA and HSA, including the LAA provision figure, is reported separately in the following chapter.

- 4.15 Looking at **limestone** alone, used only for general aggregate use and not as high specification roadstone, based on 2022 sales and remaining reserves (76.28Mt), the 10-year average sales figure of 1.98Mt equates to a landbank of 38.5 years that should last until 2060. These figures also exclude limestone reserves for non-aggregate use, which are generally the high purity limestone that is used for industrial purposes. To maintain a landbank of at least 10 years, as required by the NPPF, for limestone, new reserves would need to come on stream by no later than 2050.
- 4.16 This effectively maintain the position as reported in last year's LAA with the landbank end date moving 1 year forward when based on 10-year average sales. As the 2022 sales (at 1.91Mt compared to 2.10Mt in 2021) and therefore the 3-year average sales are lower than in 2021 then applying different sales scenarios does not have any significant impact on the landbank calculations.
- 4.17 When considering the highest sales level for limestone in the past 10 years (2.52Mt), this would reduce the landbank 30.27 years that should last until 2053. To maintain a landbank of at least 10 years, as required by the NPPF, using this rate of sales then new reserves would need to come on stream by no later than 2043.
- 4.18 **The provision rate for limestone will continue to be based on the 10-year average sales level (1.98Mt).** This is comparable to the previous LAA figure of 10-year average sales at 1.95Mt.
- 4.19 Being mindful that a number of limestone quarries have permissions that are due to expire before or shortly after the CMWLP period, and that constraints have been identified around two of these, the provision rate and the need for replenishment of limestone reserves does need to be kept under review in future LAAs. The potential for additional or accelerated road building programs coming forward as a result of the latest Network North proposals just announced by the Department for Transport (October 2023) could further impact on depletion of aggregate limestone reserves.
- 4.20 If the landbank position were to be calculated separately for Cumberland Council and Westmorland and Furness Council in future years, based on the 2022 figures this would indicate a landbank of 26.67 years for Cumberland and 50.8 years for Westmorland and Furness. However, simply dividing the permitted reserve available within each council area by the sales recorded in each area does not accurately represent supply and

demand across the sub-region of Cumbria. Looking at 2022 data, Cumberland Council holds around one quarter of the permitted reserves (24%) and generates 38% of the sales; Westmorland and Furness holds 76% of the permitted reserve and generates 62% of the sales. This suggests each council could potentially be self-sufficient in terms of crushed rock supply and demand but reserves in Cumberland would run out sooner. Arguably it would be unsustainable to seek new reserves within Cumberland whilst sufficient reserves remain within Westmorland and Furness to serve the needs of both council areas for the foreseeable future. Whilst sales, reserves and landbanks will be calculated separately for each minerals planning authority for the purpose of LAA reporting it is considered that supply and demand for crushed rock will be interdependent between the two councils and the required landbank should be planned for jointly.

- 4.21 The CMWLP identifies one Site Allocation for Limestone located within Cumberland – M10 Area of Search at Silvertop Quarry. This allocation was not to release additional reserves but to consider whether an alternative area for quarrying is available that would have less impact on the setting of the North Pennines Area of Outstanding Natural Beauty than the current permitted area. It has since been established by the operator that there is no winnable limestone reserve within this site allocation.

Summary – crushed rock

Current permitted reserves of all crushed rock for aggregate use (111.09Mt) are more than sufficient to maintain the required landbank of at least 10 years throughout the CMWLP period (2015-2030). Based on 10-year average sales (2.77Mt) there is a landbank of 40.1 years. To maintain a landbank of at least 10 years for all crushed rock throughout the CMWLP period new reserves would need to come on stream by no later than 2052.

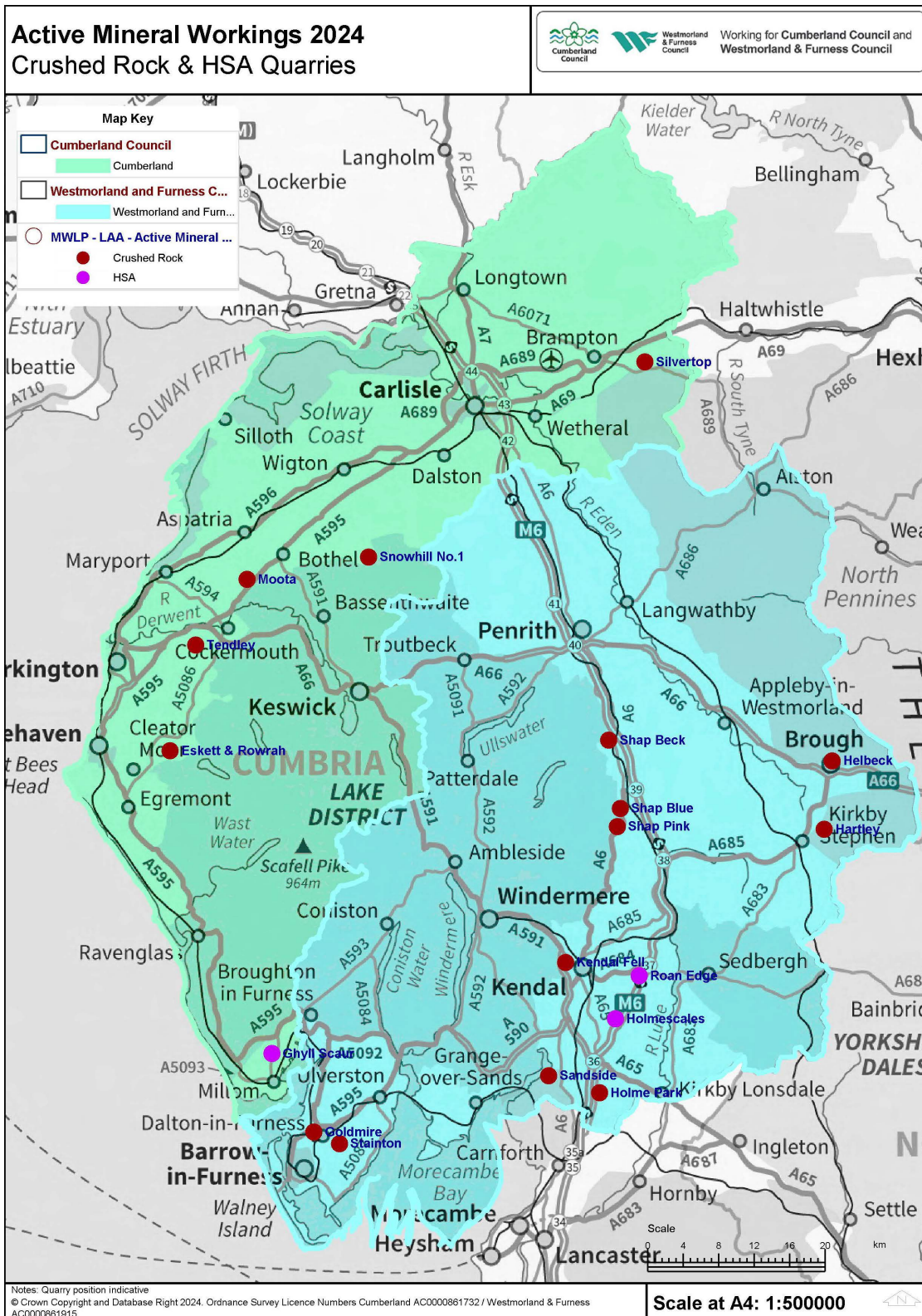
The 10-year average sales (0.34Mt) for sandstone and igneous rock (excluding high specification aggregates) equates to a landbank of 57.9 years. Using this provision figure, to maintain a landbank of at least 10 years throughout the CMWLP period new reserves would need to come on stream by no later than 2069.

Looking at reserves for limestone alone (also excluding high specification aggregates) the 10 year average sales (1.98Mt) equates to a landbank of 39.6 years. To maintain a landbank of at least 10 years for limestone throughout the CWMLP period new reserves would need to come on stream by no later than 2050. This needs to be kept under review as a number of limestone quarries have permissions that are due to expire before or shortly after 2030 and environmental constraints have been identified around two of these.

There are no concerns at this stage regarding supply and demand of crushed rock generally. Where planning permissions do expire within or shortly after the CMWLP period, relevant policies 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.

As Cumbria has three quarries producing high specification and very high specification aggregates for use as roadstones, and this is a nationally significant resource, these aggregates are assessed separately.

Crushed rock and HAS quarries map



5.0 High specification aggregates

- 5.1 The High and Very High Specification Aggregates (HSA and VHSA) produced in Cumbria are essential for the building and maintenance of roads, especially motorways, because of their high or very high skid resistance properties. They have a national and regional market and are a nationally significant resource. Skid resistance properties are measured using a number of factors, including their polished stone value (PSV). A distinction is made between high specification aggregates (HSA) with a PSV of 58+ and very high specification aggregates (VHSA) with a PSV of 68+ which are geologically rare.
- 5.2 Sales and reserves data for HSA and VHSA are calculated separately within the LAA in order to plan for ongoing supplies of this resource distinct from general crushed rock used for aggregates. Demand has risen over the past few years. There are limited sources of these aggregates in the UK and as yet no suitable alternatives.

Demand for high specification aggregates (sales)

- 5.3 Sales of HSA and VHSA for aggregate use (excluding slate, building stone and other non-aggregate sales) across Cumbria in 2022 was **0.46Mt**, the same level as in 2022. Historic sales of these aggregates are set out below. For reasons of confidentiality the sales figures cannot be reported as split between the two new councils as Cumberland Council only has one quarry providing this aggregate (Ghyll Scaur).

HSA and VHSA	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Sales (Mt)	0.41	0.38	0.42	0.48	0.43	0.52	0.57	0.45	0.46	0.46

- 5.4 Sales of HSA and VHSA have varied over the past ten years but have not yet regained their pre-recession level of over 0.7Mt recorded in 2008 and 2009. Nor have they picked up from the drop in 2020/2021 which had been attributed to restrictions placed on the construction industry during the Covid-19 pandemic.
- 5.5 As a nationally important mineral resource, demand for HSA and VHSA will be influenced by growth in infrastructure and housing from across the UK and not just within Cumbria or the North West. The government published its first Road Investment Strategy in December 2014 and this committed £15 billion (i.e. a tripling of expenditure) to upgrade existing roads and build new roads over the next five years (i.e. to 2020). The 2nd Road Investment Strategy for 2020-2025 (published March 2020) confirms details of various road programmes across England that are currently under construction or committed to

delivery over this next five year period (to 2025). This is likely to substantially increase demand for HSA and VHSA above current levels. The potential for additional or accelerated road building programs coming forward as a result of the latest Network North proposals just announced by the Department for Transport (October 2023) could further impact on depletion of this resource. In addition to these planned new road schemes there will be continued requirements for ongoing maintenance and repair of the existing national highway network. There is also likely to be increased demand for HSA and VHSA resulting from airport expansion projects and the development of new nuclear power plant facilities across the UK. It is therefore expected that demand for these aggregates will rise over the next 5-10 years.

Supply of high specification aggregates (reserves)

5.6 Permitted reserves for HSA and VHSA across Cumbria at the end of 2022, all for aggregate use, were 15.10Mt. Historic reserve figures are set out below.

Crushed rock – permitted reserves (Mt)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
High specification aggregate (HSA/VHSA)	11.43	10.98	17.22	16.74	16.56	16.11	15.50	16.15	15.62	15.10
<i>Cumberland Council</i>										5.85
<i>Westmorland and Furness Council</i>										9.25

5.7 There are three established quarries within Cumbria which provide HSA and VHSA roadstone aggregate, with additional reserves permitted at Roan Edge Landfill and Recycling site (adjacent to and in separate ownership from the quarry). Extraction in the permitted extension area on that site has not yet commenced. Location of the quarries and permitted reserves attributed to them (cumulatively) across the two new unitary authorities is set out in the table below for context. None of these are located within the Lake District National Park.

Cumberland Council	Westmorland and Furness Council
Ghyll Scaur – Igneous rock (volcanic tuff) (VHSA)	Holmescales – Sandstone/Greywacke (HSA)

Cumberland Council	Westmorland and Furness Council
	Roan Edge – Sandstone (HSA)
	Roan Edge Landfill- Sandstone (HSA)
Permitted reserves = 5.85Mt	Permitted reserves = 9.25Mt

- 5.8 **Homescales** quarry has an expiry date of February 2042 but is currently mothballed with an estimated reserve of 18,000 tonnes remaining. It has been identified as an Area of Search in the CMWLP. Extraction is currently limited to 100,000 tonnes per annum on road movements due to capacity constraints of the local road network for access. An appeal against refusal of planning permission for an increase in HGV movements was dismissed on these grounds.
- 5.9 **Ghyll Scaur** provides the highest quality VHSA roadstone and has an estimated reserve of 5.85Mt remaining at the end of 2022. It is the only operating quarry in England that produces roadstone to this standard.
- 5.10 The adopted CMWLP established that a policy approach for security of HSA supplies is required as the need to supply HSA from Cumbria may increase if supply of HSA from within the Yorkshire Dales National Park were to be restricted in the future, as implied by NPPF paragraphs 217 and 182, or if policies for European wildlife sites led to closures of existing quarries in or adjacent to such sites.
- 5.11 In the neighbouring Yorkshire Dales National Park, 4 out of the 6 working quarries produce high PSV gritstone which contributes to the HSA reserves available. Recent planning permissions have extended the operating period at Ingleton quarry to cease permanently by December 2025 (it is anticipated this would be sufficient time to extract the remaining permitted reserve from the site) and at Dry Rig until December 2034, as well as a lateral extension that would generate additional reserve. Horton quarry has permission until 2042 and is known to have significant additional resources. Arcow quarry has permission until 2029. The Yorkshire Dales Local Plan does include safeguarding areas for sandstone which will protect the remaining HSA resource from sterilization. There is no VHSA reserve within the Yorkshire Dales National Park.
- 5.12 If demand for this aggregate increases then, unless further permissions are granted, there is potential for the HSA reserves in the Yorkshire Dales National Park to be significantly reduced towards the end of our Plan periods. This would put more pressure on the HSA and VHSA reserves in Cumbria.

Managing supply and demand – LAA provision figures

- 5.13 Based on 2022 sales, the 10-year average sales figure of 0.46Mt for all higher specification aggregates (HSA and VHSA) equates to a landbank of 32.83 years that should last until 2054. To maintain a landbank of at least 10 years for this specific aggregate (the requirement in the NPPF is for all crushed rock) new reserves would need to come on stream by no later than 2044.
- 5.14 Given the importance of these resources for the UK and regional economy and anticipation of increased demand in the future, higher sales figures have also been taken into consideration. The highest sales level in the past ten years (0.57Mt) would equate to a landbank of 26.4 years ending in 2049 and pre-recession sales (0.7Mt in 2007) would equate to a landbank of 21.5 years ending in 2044.
- 5.15 If we consider sales scenarios solely in relation to the VHSA reserve (because this is the scarcer resource) applying the sales figures for all HSA and VHSA would be disproportionate. For reasons of confidentiality the sales of VHSA reserve cannot be reported in the LAA as there is only one quarry producing aggregate of this standard. Based on recent returns we estimate that VHSA accounts for approximately two-thirds of the total sales. Using this figure (around 0.3Mt for 2022 sales and 3-year and 10-year average) equates to a landbank of 19 years that should end in 2041. Applying this ratio to the higher sales figures (around 0.47Mt based on pre-recession sales or 0.38Mt based on highest sales in last ten years) reduces the landbank to either 12 years that should end in 2035 or 15 years that should end in 2038. An increase to these higher sales levels is likely to be gradual but potentially the landbank for this particular aggregate could end shortly after the current Plan periods meaning additional reserves would be required to maintain a landbank of at least 10 years for VHSA alone.
- 5.16 Currently, based on 10-year average sales there is sufficient reserve of VHSA to maintain a landbank of at least 10 years to the end of the current CMWLP period but additional reserves would be required shortly afterwards (potentially in 2031) to maintain the landbank going forward. If sales were to increase sharply it may not be possible to maintain a landbank of at least 10 years' supply right to the end of the CMWLP period unless additional reserves can be provided. Given the scarcity of this igneous VHSA, significant infrastructure projects outside of the county are likely to impact on demand for the available reserve in Cumbria.

- 5.17 The NPPF requires a landbank of at least 10 years for all crushed rock supplies, and not for each individual aggregate type. However, it is acknowledged that the VHSA reserve is of national importance and the current supply of both VHSA and HSA within Cumbria will come under pressure from demand well outside the county for major highways and infrastructure projects. This pressure will be compounded if HSA reserves currently available within the Yorkshire Dales National Park cease to be available. Sales, reserves and future demand for VHSA will continue to be monitored closely in future LAAs, having regard to any further studies that may be carried out on the supply and demand for HSA/VHSA nationally. However, without such evidence being currently available, the position in respect of VHSA and HSA combined is that there is sufficient reserve to maintain a landbank of at least 10 years right to the end of the CMWLP period. It must also be borne in mind that, due to the commercial sensitivity of sales data and the fact only one quarry produces the VHSA, these future demand assumptions are based on an estimated figure (approximately two-thirds of total sales) rather than the actual sales figure for that quarry. However, this continues to be a reasonable basis on which to estimate the potential impact of future sales on the available reserve for the purpose of calculating landbanks for VHSA alone.
- 5.18 In the absence of any up-to-date national data to indicate otherwise, **provision for HSA/VHSA will continue to be based on the 10-year average rolling sales level (0.46Mt)**. This is showing a downward trend compared to previous years but reflects the fact that sales of HSA/VHSA have not yet picked up from the higher levels of above 0.5Mt reported for 2018 and 2019. Given the scarcity of the VHSA resource in particular, it is important to manage release of the available reserve to ensure it is done in respect of actual demand rather than perceived demand. This approach seeks to avoid additional reserve being released prematurely and then being sold for projects that did not require aggregate of such a high specification.
- 5.19 This equates to a landbank of 32.2 years that should last until 2054. To maintain a landbank of at least 10 years for these higher specification aggregates throughout the CMWLP period new reserves would need to come on stream by no later than 2044.
- 5.20 None of the currently permitted reserves are located within the Lake District National Park. Within the Lake District National Park, where there is potentially an alternative supply of VHSA, great weight is given to conserving and enhancing landscape and scenic beauty. Within such areas, national planning policy states that permission should be refused for major development other than in exceptional circumstances, and where it

can be demonstrated that the development is in the public interest. There is no permitted reserve for VHSA/HSA identified by the other mineral planning authorities within the NW AWP area.

- 5.21 The CMWLP identifies two site allocations for high specification roadstones only, both located within Westmorland and Furness: M16 Area of Search at Holmescales Quarry and M30 Area of Search at Roan Edge quarry.

Summary – high specification and very high specification aggregates

Current permitted reserves of HSA and VHSA for use as roadstone is 15.10Mt. This is sufficient to maintain the required at least 10 year land-bank throughout the Plan period (2015-2030). Based on current 10-year average sales (0.46Mt) there is a landbank of 32.8 years. To maintain a landbank of at least 10 years for all high specification aggregates throughout the CWMLP period new reserves would need to come on stream by no later than 2044.

If sales increase significantly, the need for additional reserve to maintain the 10-year landbank could occur sooner, within the next Plan period (potentially between 2034 and 2039).

There are four HSA quarries in the neighbouring Yorkshire Dales National Park. If in the future planning permission is not granted for any time extension that may be needed to extract all the permitted reserve there, or for additional reserve to be extracted where there is known to be a resource, there will be additional pressure on the supply in Cumbria.

Ghyll Scaur is the only operating quarry in England to produce the VHSA roadstone. This is a nationally important 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.

If we apply the current 10-year average sales proportionately to VHSA alone (this typically equates to about two-thirds of all sales), there should be sufficient reserve to maintain a 10 year supply of VHSA just to the end of the CMWLP period but new reserves would need to come on stream moving into 2031. The situation with VHSA will be closely monitored.

Site Allocations in the adopted CMWLP are made for two Areas of Search for HSA. There is potential for an Area of Search for VHSA to be made within the Lake District National Park but currently their policies would not permit extraction. Within such areas, national planning policy states permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest.

6.0 Building stone and slate

6.1 There are around 20 building stone and slate quarries currently operating across the sub-region of Cumbria now that some permissions have recently expired and not been renewed. Two (Rooks and Pickering- both limestone) are now within the Yorkshire Dales National Park so are no longer reported in this LAA. Details of these quarries are set out in the table below. Most sites provide building stone only but some produce secondary aggregate from off-cuts (stone and slate). Both Snowhill No. 1 and Snowhill No.2 are known to produce some stone for aggregate use as well as building stone so are considered as providing crushed rock as well.

Quarries outside the Lake District National Park

Cumberland Council	Westmorland and Furness Council
Snowhill No.1 – limestone	Crag Nook – sandstone
Snowhill No.2 – sandstone	Scratchmill Scar – sandstone
Lambhill – sandstone	Red Rock Canyon – sandstone
Birkhams – sandstone	Bowscar – sandstone
Bank End – sandstone	Flinty Fell – sandstone
Grange – sandstone	Mousegill – sandstone
	Kirkby Slate Quarry - slate
	Baycliff Haggs – limestone
	Leipsic – sandstone
	West Brownrigg – sandstone

Quarries within the Lake District National Park

Cumberland Council	Westmorland and Furness Council
Low Brandy Crag – slate	Petts – slate
Honister – slate	Brathay – slate
	Elterwater (Lords) – slate
	Peatfield (Hodge Close) – slate
	High Fell (High Fellside or High Tilberthwaite) – Slate
	Bursting Stone (Coniston) – slate
	Broughton Moor – slate

6.2 During 2022, planning permissions were granted for time extensions at the following quarries for building stone – Lambhill (2037), West Brownrigg (2041), Petts (2030) and Snowhill Quarry 1 (2033).

- 6.3 Currently planning permissions at the following sites have expired or are due to expire before the end of the CMWLP period (2030). In some cases operators will only seek to renew a consent when a specific local need for the material arises (e.g. when a building project is due to commence in the area).

Cumberland

Site	Permission end date
Low Brandy Crag – slate	2026
Grange – sandstone	2028
Snowhill Quarry 2 – sandstone	2020

Westmorland and Furness

Site	Permission end date
Brathay – slate	2018
Peatfield – slate	2026
High Fell- slate	2024
Flinty Fell – sandstone	2024
Mousegill – sandstone	2016
Red Rock Canyon – sandstone	2025

- 6.4 With the exception of Kirkby, the remaining slate quarries are all within the Lake District National Park and the majority are not producing aggregates. **Broughton Moor**, **Elderwater** and **Kirkby** all produce slate waste for aggregate use which is recognized as a secondary aggregate in this LAA. **Honister** is also known to produce slate waste. **High Fell** produces green slate used in flooring and worktops.
- 6.5 There have been a number of variation of planning condition applications submitted recently within the Lake District National Park from developers requesting use of imported slate as an alternative due to perceived concerns over the availability of local slate. However, it is understood that local operators are continuing to invest in their quarries to secure long term supplies.
- 6.6 The Lake District National Park Local Plan was adopted in May 2021 and Policy 27 (Mineral extraction) supports the extension of an existing site or reopening of an old site where the mineral extraction would meet a local need for building stone and slate.
- 6.7 The Yorkshire Dales Local Plan (December 2016) also supports the quarrying of building stone and roofing slate, including by re-opening of existing quarries, in order to increase

supplies of locally sourced materials for use in new developments and the repair and maintenance of traditional buildings.

- 6.8 Due to the conservation value and sustainability benefits of allowing this local resource to be quarried within the two National Parks, the potential for aggregate provision from these quarries to contribute to the supply of aggregates within the sub-region of Cumbria is likely to remain throughout the Plan periods. Policy DC12 of the CMWLP gives support to proposals for building stone quarries where there is a need for local stone to match the local architectural style and for conservation and repair of heritage assets. The NPPF also requires local authorities to consider how to meet any demand for the extraction of building stone needed for the repair of heritage assets, taking account of the need to protect designated sites; and also the small-scale nature and impact of building and roofing stone quarries, and the need for a flexible approach to the duration of planning permissions reflecting the intermittent or low rate of working at many sites.

7.0 Recycled and secondary (alternative aggregates)

- 7.1 The term alternative aggregates is used to describe both recycled and secondary aggregates. Recycled aggregates are produced by recycling construction, demolition, excavation and other wastes; secondary aggregates are by-products of other mining or quarrying operations (including stone off-cuts and slate waste), or of other industrial processes. There are no landbanks required for recycled or secondary aggregates.
- 7.2 In Cumbria, examples of recycled aggregates include railway track ballast as well as the more typical construction waste of bricks and concrete. Examples of secondary aggregates are slate waste and old blast furnace slag banks.
- 7.3 As well as those quarries already identified as producing aggregates from quarry waste, there are around 20 main processing plants in Cumbria producing aggregates from recycled or reused materials. They are situated in a variety of locations: aggregate quarries, building stone quarries, on industrial estates, railway land or at landfill sites. Few of the slate quarries, which are predominantly situated in the National Park, provide significant quantities of waste material that can be used for secondary aggregates. Location of these facilities across the two new unitary authorities and the materials they recycle for aggregate use is set out in the table below for context.

Cumberland Council	Westmorland and Furness Council
Silvertop quarry – inert construction waste	Sandside quarry – inert construction waste

Cumberland Council	Westmorland and Furness Council
Hespin Wood landfill – secondary aggregates	Flusco quarry – HIC and construction waste
Derwent Howe slag bank – slag extraction and recycling of wastes	Roosecote quarry – construction materials
McKay Plant & Skip hire, Lillyhall – construction and demolition waste	Goldmire quarry – construction and demolition waste
Phillip Carruthers Ltd, Lillyhall – concrete, rubble and bricks	Bonnie Mount quarry – inert building waste
Ashcroft Demolition (Cumbria) Ltd, Flimby – construction waste	Roan Edge landfill – inert wastes
Thompson's Plant Hire Ltd, Flimby – construction waste	Tony Brown Aggregates Ltd, Diamond Yard, Lindal-in-Furness – stone, brick etc.
North West Recycling, Kingmoor, Carlisle – construction and demolition waste	
Cubby Construction Ltd, Kingmoor, Carlisle – construction waste, road planings	
Lawson's Recycling centre, Beckermest – construction waste	
DA Harrison, Silloth Airfield – inert waste	
Harry Barker Properties Ltd, High Greenscoe – construction waste	
Kingmoor Marshalling yards, Carlisle – concrete rail sleepers and spent ballast	
Overby sand quarry – inert waste	

Demand for recycled and secondary aggregates

7.4 It can be difficult to obtain reliable information on the amounts of alternative aggregates that are produced as it tends to be only the key known operators who are sent out a survey, and of those many do not provide a return. This year 50% of the recycled aggregate operators returned a survey (7 out of 14 sent) and 2 of the 3 secondary (slate) operators returned a survey. Therefore for many years sales figures for recycled and secondary aggregates have been estimated based on returns for previous years. Reported sales figures for recycled waste have previously included soils which should in fact be recorded as non-aggregate use, although this does not appear to have significantly skewed the figures reported. In addition the figure for production of slate waste (a secondary aggregate) has been set at around 220,000 for a number of years but with no recent evidence of actual sales levels. It has also been assumed that around 100,000 tonnes of railway ballast is processed each year for recycled aggregate but recorded figures have not previously been monitored.

- 7.5 Taking into account the limitations outlined above, the following figures are reported for overall sales of recycled and secondary aggregates across the sub-region of Cumbria from 2017 onwards. For 2022 the figures have been provided by the operators on 3 out of the 4 sites known to produce aggregate from slate waste so this is included the figure reported. The figure for aggregate sales excluding slate (recycled aggregate) in 2022 is a slight drop from the amount estimated for 2021 but consistent with the figures for 2019 and 2020.

Recycled/Secondary aggregate sales (Mt)	2017	2018	2019	2020	2021	2022
Figure recorded in LAA	0.315	0.396	0.456	0.541	0.516	0.466
Estimated slate sales	0.148	0.220	0.220	0.220	0.220	0.227
Aggregate sales excluding slate	0.167	0.176	0.235	0.235	0.296	0.239
<i>Cumberland Council</i>						<i>0.142</i>
<i>Westmorland and Furness Council</i>						<i>0.097</i>

- 7.6 In last year's LAA (reporting on 2021 data) it was decided to try a different approach to assessing the supply of recycled and secondary aggregates, using the Guidance on Assessing Levels of Recycled Aggregates that has been produced by the Chairs of the National Waste Technical Advisory Boards and Aggregate Working Parties. This is considered to be more reliable than assessing supply based on sales figures alone and also identifies quantities of railway ballast.

Supply of recycled and secondary aggregates

- 7.7 The NPPF makes it clear that planning policy should take into account the contribution that secondary/recycled materials and minerals waste can make to the supply of materials before considering extraction of primary materials.
- 7.8 Precise figures cannot be provided about reserves of these alternative aggregates because they will only arise as the waste feedstock material becomes available. Figures from the operator surveys relate to the sales of recycled aggregate from a particular site and are not necessarily a reflection of the amount of recycled aggregate that is or could be produced at that site.
- 7.9 Analysis of the Environment Agency's Waste Data Interrogator (WDI) can provide another means of assessing supply of recycled aggregate by looking at the amounts of construction and demolition waste that are received at treatment facilities and are recorded with an end fate of recovery/re-use rather than an end fate of disposal (e.g. landfill, incineration). This can provide a more up-to-date picture of the number and

range of sites that are processing construction and demolition waste that is suitable for use as aggregate. However, some care is needed with the filtering of the data in the WDI as not all types of construction and demolition waste will be suitable for use as aggregate; not all recorded end fates of 'Recovery' will imply use as an aggregate, and there is also a risk of double-counting if waste is transferred from one facility to another.

- 7.10 Guidance on Assessing Levels of Recycled Aggregates has been produced by the National Waste Technical Advisory Board Chairs and Aggregate Working Party Chairs which considers the risks and benefits of different data collection methods and includes some guidance on appropriate filtering of data within the WDI. Given the minimal amount of data on recycled aggregate sales that is currently available from use of operator surveys, it is considered that use of the WDI to look at the potential for supply of recycled aggregates within Cumbria would give a more realistic indication of the contribution they can make. Use of the WDI data also gives more specific figures on the amount of railway track ballast being processed, rather than relying on a standard estimate. Where an operator survey has been provided for the data year giving amounts of aggregate sold, that figure has been used instead.
- 7.11 Following this method, the WDI has been filtered for the following waste codes (01 04 04; 01 04 09; 17 01 01; 17 01 02; 17 01 03; 17 01 07; 17 03 03; 17 05 08; 17 09 04) on sites classified as either treatment or transfer facilities with an end fate recorded on the WDI as Recovery (this means the waste went on to be re-used/recycled for another purpose, rather than being disposed of as waste). A simple calculation of subtracting the amount of waste removed from the amount of waste received gives a figure of 237,932 tonnes potential supply of recycled aggregate.
- 7.12 However, some sense checking is required as where an operator survey has been returned the sales figure provided for recycled aggregate is often considerably higher than would otherwise have been calculated for that site. Knowledge that some waste transfer stations are recognised as suppliers of recycled aggregate and others are not has also been taken into account. Applying this sense check to the initial WDI analysis creates an estimate of 239,143 tonnes. This approach to considering the contribution that recycled aggregate can make to the supply across Cumbria is therefore considered to be reasonable and justified at this time.
- 7.13 Using data from the WDI (and cross-referencing with operator survey returns where received) the following amounts of recycled aggregate (from inert waste) are estimated to be available. Data using this methodology is available from 2020 onwards. For context,

the total amount is shown distributed between the two new councils starting from 2022. It can be assumed that all the track ballast is generated within Cumberland as that is where the Kingmoor marshalling yards are located, on the rail sidings at Carlisle. Network Rail import large quantities of old rail ballast here to process and then export around the UK. However, a small amount received at Metcalfe Plant Hire in Westmorland and Furness is recorded on the WDI 2022 also.

Potential supply of recycled aggregate (tonnes)	2020	2021	2022
Track ballast	120,666	77,995	55,990
Other construction waste (e.g. bricks, cement, tiles)	285,511	214,252	183,153
Total	405,777	292,247	239,143
<i>Cumberland Council</i>			<i>142,126</i>
<i>Westmorland and Furness Council</i>			<i>97,017</i>

- 7.14 In addition to the supply of recycled aggregate, there is a supply of secondary aggregate from slate waste from at least 3 of the slate quarries within Cumbria. This year returns were provided for 3 of the slate sites which gives a total sales figure of 227,183 tonnes. This indicates that the estimate of 220,000 tonnes used in previous LAAs was a reasonable approach. These sites have a combined maximum production capacity of 385,000 tonnes per annum. The 2022 surveys received also gave an estimate of permitted reserves for slate; 6.1Mt in total with 1.1Mt of this defined as material not suitable for roofing slate and architectural slate. This confirms that slate waste continues to be available as a recognised source of secondary aggregate for Cumbria at this time.
- 7.15 A planning application was submitted in 2021 at **Esk Quarry** which includes an element of inert waste recycling to produce aggregate. This was approved in February 2023 subject to a S106 Agreement; decision now issued in October 2023.
- 7.16 As well as the sites identified in this chapter, there are a number of operators with mobile plant who travel to demolition sites to process waste. This suits the dispersed settlement pattern in Cumbria and incidentally cuts down 'waste miles' as well as 'minerals miles'.
- 7.17 The supply of recycled aggregate from construction and demolition waste will be linked to the amount of development and redevelopment taking place. Many of the planned infrastructure projects set out in *Appendix 1 - Other Relevant Local Information* - may generate large amounts of inert waste that could be recycled and re-used for aggregate purposes.

7.18 Currently the following permissions for facilities to provide recycled aggregate (typically through recycling of inert waste) are due to expire before the end of the Plan periods:

Cumberland

Site	Permission end date
High Greenscoe quarry	2024
Overby quarry	2026

Westmorland and Furness

Site	Permission end date
Stoneraise quarry	2029

Managing supply and demand

7.19 Policy 06 (Design and Development) in the adopted LDLP includes a requirement that developers should use construction methods that allow disassembly rather than demolition and facilitate the re-use of materials. It is also intended to encourage provision of on-site facilities to create recycled aggregates from materials that cannot be re-used. The production of alternative aggregates is encouraged in the adopted CMWLP and policy DC9 (Criteria for waste management facilities) proposes that suitable industrial estates are appropriate locations for such facilities, plus aggregate quarries and non-inert landfills if the facility permission is tied to the active life of the site

7.20 Derwent Howe slag bank at Workington is identified as a Mineral Safeguarding Area (MSA) - reference M24 in the CMWLP - as it is an important resource of secondary aggregates. However, it is now established for recreational use, including part of the English Coastal Path, and also hosts a significant colony of the small blue butterfly. Further extraction from this site therefore may not be supported. In previous drafts of the Plan it was suggested that both Millom and Barrow slag banks, which are also owned by Cumberland Council, could be similarly safeguarded as MSAs. At present, neither resource is likely to be accessible: Millom is now a Local Nature Reserve that also falls within the Duddon Estuary Special Protection Area and Ramsar, whilst Barrow is located adjacent to the same SPA and Ramsar, as well as the Morecambe Bay Special Area of Conservation. There are no such slag resources located in the Lake District National Park.

7.21 There is an MSA identified for slate in the CMWLP. This is a fairly localised MSA, of the Wray Castle formation, which encompasses Kirkby Slate Quarry, a producer of

secondary aggregate. The LDLP also has an MSA for slate, which encompasses both Elterwater and Honister quarries, the other slate waste producers.

Summary – recycled and secondary aggregates

Alternative aggregates will continue to have an important role in the provision of aggregate supply. There is no landbank requirement for alternative aggregates and reserve figures cannot be provided as they only arise when the waste material becomes available.

In Cumbria the main source of alternative aggregates is recycled aggregate from inert waste; predominantly construction and demolition waste but approximately 25% of the supply is from railway track ballast. Slate waste is recognised as a source of secondary aggregate in Cumbria as at least 3 of the operating slate quarries are known to produce this and have confirmed supplies continue to be available.

Previous analysis of sales of recycled aggregates, based on operator surveys with heavy reliance on estimated figures, has shown a steady increase over the previous 3 years. However, using analysis of the Environment Agency's Waste Data Interrogator (WDI) is considered to provide a more realistic assessment of the available supply of recycled aggregate and this methodology will be used going forwards. WDI analysis for 2022 indicates a supply of 0.24Mt recycled aggregate. This is a slight drop from the figure estimated for 2021 but consistent with the figures for 2019 and 2020.

Trends in sustainable construction methods mean that demand for alternative aggregates should continue. Actual supply will be linked to the amount of development taking place.

Mineral Safeguarding Areas are identified in the CMWLP for Derwent Howe slag bank as an important resource of secondary aggregates (although there is some doubt over its suitability for future extraction) and for slate at Kirkby Quarry. The LDLP also has a Mineral Safeguarding Area for slate at Elterwater and Honister.

8.0 Infrastructure for aggregates and minerals safeguarding

- 8.1 The NPPF also states that planning authorities should safeguard existing, planned and potential rail heads and wharfage in their Local Plans. In the adopted CMWLP site allocations policy SAP5 identifies the following existing and potential rail head/sidings for safeguarding for aggregates use:

Cumberland Council	Westmorland and Furness Council
AL18 -Port of Workington and railhead	BA26 – Barrow Port and rail sidings
AL32 – Siddick potential rail sidings	M35 – Shap Beck quarry rail sidings, Shap
AL39 – Silloth Port	M36 – Shapfell quarry rail sidings
M34 – Kingmoor rail sidings, Carlisle	M37 – Shap Blue quarry rail sidings
	M38 – Kirkby Thore gypsum works rail sidings

- 8.2 The potential site, AL32 at Siddick, near Workington, was put forward originally as a rail head for a conveyor link to a coal extraction site. Although the coal extraction site is not an allocation the rail head could still be used for other economically viable mineral or waste operations in the area.
- 8.3 The Lake District National Park does not contain any rail heads, but two within Cumbria serve quarries whose extraction area lies within the Park and these need to be safeguarded; these are M35 Shap Beck Quarry and M37 Shap Blue Quarry in the CMWLP. Shapfell Quarry is in the same area, but lies wholly outside the Park; it also has rail sidings that are safeguarded in policy SAP5, as site M36. Kingmoor sidings near Carlisle are also identified (site M34), as Network Rail Infrastructure import large quantities of old rail ballast here, process it and then export the recycled aggregate around the UK.
- 8.4 In addition to these safeguarded facilities, planning permission was granted in January 2018 to Burlington Aggregates for a rail loading facility at Cavendish Dock, Barrow (6/17/90100). This has been successfully operated on several occasions fulfilling aggregate orders by rail to the north of the county to support a major infrastructure project. This facility will also need to be safeguarded in accordance with the NPPF.
- 8.5 There are no wharves in the Lake District National Park, as there is only a very small coastal section on their boundary. Two working ports and their rail sidings have been identified in the CMWLP: BA26 Barrow Port and AL18 Workington Port. Barrow in particular, handles limestone, sand, aggregates (including marine landings) and granite. Workington is situated on the river Derwent, and the channel is regularly dredged to

maintain its access to deeper drafted ships. Silloth Port no longer has rail connection, but is identified for safeguarding as a working port with potential to support sustainable transport of waste and minerals.

- 8.6 Both the CMWLP and the Lake District Local Plan have minerals safeguarding areas identified and policies for assessment of proposals for non-minerals development within these areas to consider whether prior extraction of the mineral should be carried out prior to the proposed development takes place. Previously Cumbria County Council , as the minerals planning authority, would be consulted by the district councils on planning applications they receive for non-minerals development that could potentially affect the winning and working of minerals. Going forward, minerals safeguarding will be incorporated into the work of the two new councils as unitary authorities with minerals planning responsibilities.

9.0 Imports and exports

Supply patterns

- 9.1 The location and size of Cumbria, its dispersed settlement pattern and the layout of road and rail networks, have implications for how it meets its needs for minerals. Not only does the county as a whole tend to be self-sufficient, but there are also recognisable areas within the county, which have traditionally met their own needs from local sources. The locations of Cumbria's quarries are not dispersed uniformly around the county because of geology. There are very few hard rock quarries in the north of the county and only two operating sand and gravel quarries in the south west.
- 9.2 In the context of the two new unitary authorities formed as a result of LGR in April 2023, 8 sand and gravel quarries are located in Cumberland Council (holding 64% of the reserve and generating 83% of the sales) and 3 are located in Westmorland and Furness (holding 36% of the reserve and generating 17% of the sales). For crushed rock, 7 quarries are located in Cumberland (holding 24% of the reserve and generating 38% of the sales) and 15 are located in Westmorland and Furness (holding 76% of the reserve and generating 62% of sales).
- 9.3 To some extent the old, traditional supply patterns of minerals within the county still exist. This pattern mainly arises from the small operators, often with a local niche market, but the rising cost of transport of minerals is also a contributory factor. It is more usual for the national, conglomerate or international companies to operate across a wider area, often sending their minerals to their own processing/production plants around the UK.
- 9.4 Of the three crushed rock quarries that have specialised national and regional markets, Ghyll Scaur is the only operating quarry in England that produces very high skid resistance roadstones; Roan Edge and Holmescales produce high skid resistance ones. Because of geology other parts of the North West and also other parts of the UK rely on supplies of aggregates from Cumbria. The county has traditionally supplied far more crushed rock than it needs for its own use.

How much aggregate does Cumbria need?

- 9.5 The latest DCLG-BGS aggregates survey (AM2019) collates national data for primary aggregates for 2019 in England and Wales. This shows a 'consumption'⁶ of 50.35Mt of sand and gravel (lower than the 53.3Mt recorded in AM2014) and 99.49Mt of crushed rock (higher than the 84.10Mt recorded in AM2014). Based on ONS population figures

⁶ 'consumption' includes use of aggregates imported from outside England and Wales, in addition to sales

for England and Wales in 2019⁷, this would equate to 0.85 tonnes/person of sand and gravel and 1.67 tonnes/person of crushed rock.

- 9.6 According to the 2021 Census data (as reported by the Cumbria Observatory) the population across Cumbria at that point was 499,800 (226,600 in what is now Cumberland and 273,200 in what is now Westmorland and Furness). Using the consumption per head figures reported in the AM2019, this would mean a requirement of 0.42Mt of sand and gravel per annum across the whole of Cumbria and 0.83Mt of crushed rock.
- 9.7 In 2022, Cumbria's quarries sold 0.8Mt of sand and gravel and 2.66 Mt of crushed rock, which equates to nearly twice as much sand and gravel and more than three times as much crushed rock as is needed within the county based on consumption per head calculations.
- 9.8 For context, the requirement per head is set out for each council below.

	Population @ 2021 Census	Sand and gravel @ 0.85 tonnes per head	Crushed rock @ 1.67 tonnes per head
Cumberland	226,600	192,610 0.19Mt	378,422 0.38Mt
Westmorland and Furness	273,220	232,220 0.23Mt	456,244 0.46Mt
CUMBRIA	499,800	424,830 0.42Mt	834,666 0.83Mt

- 9.9 For the North West region, the AM2019 survey shows consumption of 2.56Mt for sand and gravel, and 12.24Mt for crushed rock. Using the same formula based on ONS mid-2019 population figures for the North West region (7,341,196) this gives a consumption rate for the North West of 0.35 tonnes/person for sand and gravel and 1.67 tonnes/person for crushed rock. So whilst crushed rock consumption per person is the same, sand and gravel consumption is less than half of that calculated for the whole of England and Wales.
- 9.10 Looking ahead, the council's current population growth estimates remain fairly steady throughout the Plan period, at around 500,000 in 2025 and 2030, then dropping to

⁷ 59,439,840 at mid-2019: [Population estimates for the UK, England and Wales, Scotland and Northern Ireland - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/population/population-estimates-for-the-uk-england-and-wales-scotland-and-northern-ireland)

around 498,000 by 2035. The table below shows the estimated requirements for sand and gravel and for crushed rock (based on the national consumption per head calculations) at these intervals in the Plan period (CWMLP ending 2030; Lake District National Park Local Plan ending 2035), and how this compares to recent sales trends. The LAA provision figures set for sand and gravel and crushed rock in this LAA will therefore continue to provide for well in excess of the amount of aggregate required within Cumbria based on population growth alone. Going forward each council will develop its own growth strategy based on updated population forecasts for their area as they progress work on new Local Plans for their area. This will inform assessment of demand for aggregates across the sub-region of Cumbria in future LAAs.

	Estimated population	Sand and Gravel Mt (0.85 tonnes per person)	Crushed Rock Mt (@ 1.67 tonnes per person)
Estimated consumption within Cumbria (Mt) (2020)	499,781	0.42	0.83
Sales 2018		0.71	2.82
Sales 2019		0.77	3.01
Sales 2020		0.75	2.59
Sales 2021		0.85	2.86
Sales 2022		0.8	2.66
Predicted consumption by 2025	500,625	0.425	0.836
Predicted consumption by 2030	500,028	0.425	0.835
Predicted consumption by 2035	498,804	0.423	0.833

- 9.11 *Appendix 1 – Other Relevant Local Information* provides details of major infrastructure projects, including housebuilding, that are planned in Cumbria over the next few years. Significant developments currently anticipated to commence within the next 5 years or so are the CSLR, the A66 dualling and the A595 Grizebeck Improvement Scheme, as well as some initial phases of the St. Cuthbert's Garden Village (subject to the granting of planning permission).
- 9.12 The CSLR and the A66 projects are likely to impact on demand for HSA and VHSA roadstone. 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.

Movement of primary aggregates by sub-region

- 9.13 The majority of sales have been within Cumbria itself, with exports primarily within the North West region or the neighbouring North East. The exception to this is the High/Very High Specification Aggregates (HSA/VHSA), which have a national market.
- 9.14 The national survey AM2019⁸ collated by British Geological Survey shows that Cumbria does help to meet the mineral needs of other parts of the region. For sand and gravel, it indicated 74% sales within Cumbria; 11% in the North West and 14% elsewhere. For crushed rock it indicated 40% sales within Cumbria; 40% in the North West and 12% elsewhere. However, much of the North West region's shortfall is met from other regions - for example, quarries in Derbyshire and North Wales supply Greater Manchester due to their proximity, whilst half of Cumbrian quarries serve other regions, especially the North East. Just under one third of Cumbrian quarries also supply national markets, including Wales and Scotland.
- 9.15 The table below shows the tonnage sold in Cumbria and exported to other regions, as reported in the AM2019 survey. This shows a slight drop in figures compared to the 2014 survey. In particular, the figure for crushed rock sold in Cumbria has dropped from 1.31Mt previously recorded to 0.84Mt, although there is now 0.16Mt crushed rock sales marked as unallocated.

Aggregate type	Total sales (Mt)	Sold within Cumbria	Sales to North West	Sales elsewhere	Unallocated
Sand and gravel	0.64	0.47	0.07	0.09	-
Crushed rock	2.1Mt	0.84	0.84	0.25	0.16

- 9.16 According to the survey (AM 2019 -Table 10), in 2019 Cumbria imported 3,000 tonnes of sand and gravel (compared to between 250,000 and 350,000 tonnes for other identified MPAs in the North West) and 196,000 tonnes of crushed rock (compared to between 1,800,000 and 4,300,000 tonnes for other identified MPAs in the North West, with the Greater Manchester authorities importing much higher amounts than those recorded for

⁸ Aggregate Mineral Survey England and Wales 2019, British Geological Survey, 2021

Cheshire and Lancashire authorities). Cumbria's imports account for less than 2% of the total primary aggregates imported into the North West (10,579,000 tonnes – 10.58Mt).

- 9.17 Currently, the BGS survey is the most up-to-date comprehensive assessment of aggregates sales destinations. The next survey (AM2023) will be conducted next year reporting on data from 2023. Information provided by operators on the 2022 annual survey returns for this LAA confirms that sand and gravel sales include exports outside of Cumbria and the North West to the North East (Durham, Northumberland, Tyne and Wear) and to Scotland. Crushed rock sales outside the region include to Yorkshire and Humberside, the North East and to Scotland (typically for asphalt sites). Sales of secondary aggregates are predominantly local within Cumbria, with some small amounts recorded as going to Scotland, Lancashire and North Yorkshire. Some slate sales are more regional and there is a national market for decorative slate.
- 9.18 Exports of the HSA/VHSA roadstone include sales further afield. The 2022 returns record sales to areas beyond the North West and neighbouring North East in North, South and West Yorkshire. As a national resource, such exports are likely to rise as demand increases with various national infrastructure projects coming forward such as investment in new roads, airport expansion projects and new nuclear plant facilities.

Future demand from outside Cumbria

- 9.19 Information on planned infrastructure requirements within other NW authorities - and also those outside the region identified as importing materials from Cumbria - can be found in their LAAs and this information needs to be taken into account when predicting future demand. Growth in housebuilding generally is common across all authorities. Details of other key projects are outlined below with anticipated timescales where known. Until recently, the planned creation of a HS2 route up to the North West has impacted on expected aggregate requirements for the Cheshire authorities in particular. Following the announcement in October 2023 that HS2 will not extend beyond Birmingham this is no longer a factor. However, the subsequent announcement of the Network North proposals could result in additional or accelerated road building programs coming forward which will create additional demand for aggregates within the North West and beyond, in particular the high and very high specification roadstones.
- 9.20 The 2019 LAA for Greater Manchester, Merseyside and Halton, and Warrington identifies a number of major infrastructure projects, including - in Merseyside large regeneration projects at Liverpool Waters and Wirral Waters; as well as significant commercial/research construction in the Knowledge Quarter at Liverpool University. It is

unclear at this stage whether significant imports from Cumbria would be required; the need for reusing and recycling construction waste on site is encouraged to minimise aggregate requirements wherever possible.

- 9.21 In Greater Manchester, major projects include upgrade works to the M60 and M62 as well as continuing developments at Media City and Port Salford; no estimates on aggregate requirements are currently available. Work on the previous Greater Manchester Spatial Framework has been superseded by a work on a new joint plan Places for Everyone, which will now plan for significant growth to meet requirements up to 2037 but historically material has been supplied to this area from outside of the North West. Final growth and housing figures are still being confirmed.
- 9.22 In Warrington a new strategic relief road, the Warrington Western Link with construction currently anticipated to commence in 2023, as well as the Omega employment site.
- 9.23 Looking ahead, development of the proposed Mersey Tidal Barrage will lead to increased demand for aggregates in the region. At this stage project timescales and funding are not certain. In March 2024 it was announced that the Liverpool City Region Combined Authority had agreed to begin the formal planning process for this scheme.
- 9.24 The Lancashire 2023 LAA refers to significant investment in the transport network through the Lancashire City Deal (Preston Western Distributor, Fylde Heyhouses/M55 Link and the East-West Link Road) which will in turn unlock sites for delivery of housing and commercial developments. Other sites coming forward through the City Deal and Lancashire Enterprise Partnership growth agenda will also increase demand for aggregates, such as the Cuerden strategic site and a large number of housing development proposals. Details on the amount of aggregate required and likely duration of the works are uncertain at this stage.
- 9.25 The 2023 LAA for Cheshire West & Chester (CWaC) identifies a number of planned regeneration projects in Winsford, Northwich and Chester which, together with proposed Site Allocations for employment use and housing, will demand provision of primary aggregates. Cheshire West and Chester has been deemed a Priority 2 area for Levelling Up purposes and through this has secured funding for transformation of Ellesmere Port town centre.
- 9.26 In addition, the North Wales and Dee Estuary Prospectus has identified the Mersey Dee area as ideally placed to lead on the affordable and clean growth agenda, with particular focus on nuclear, hydrogen, storage, renewables and smart networks. Initiatives from these scheme will potentially drive up the demand for aggregates in this part of the region.

- 9.27 Neighbouring Cheshire East references a number of major road schemes as forming part of their Local Plan strategy.
- 9.28 Significant projects in Cheshire are potentially more likely to impact on reserves in Cumbria as the Cheshire MPAs do not have their own reserves of crushed rock. However, the CEC LAA states that the main suppliers of crushed rock are principally Derbyshire, then Flintshire and Leicestershire, with Cumbria providing between 1-10% of their crushed rock. The Cheshire West and Chester LAA identifies Cumbria as providing between 1-10% of their crushed rock imports. Cumbria's 2022 operator returns identify 47,271 tonnes of crushed rock being exported to the sub-region of Cheshire, the majority (over 70%) of which was very high specification roadstone.
- 9.29 Looking at planned infrastructure requirements outside of the North West region, the latest LAAs produced by Durham County Council and Northumberland County Council identify a number of major road widening proposals both within the county and the wider North East, including works to the A1 and A19, as well as the A66 dualling.
- 9.30 These could all potentially require supply of HSA and VHSA from Cumbria within the next 5 years although precise quantities and likely sources are generally not known at this stage. However, it should be noted that Durham do not identify a significant pattern of imported material from Cumbria being required to support these projects and much of the aggregate required for highways projects is identified as coming from the south of the county or in neighbouring North Yorkshire. Similarly, Northumberland do not consider the amounts of aggregate imported from Cumbria to be significant.
- 9.31 Cumbria's 2022 operator returns records sales of over 35,000 tonnes of crushed rock to County Durham (all VHSA) and just 20 tonnes of sand and gravel, with just under 7,000 tonnes of sand and gravel to Northumberland. None of the surveys received identified Northumberland specifically as a sales destination for crushed rock.
- 9.32 The North Yorkshire Sub-Region LAA (6th Review - 2021) does not identify any specific planned infrastructure projects. The document does note the issue of continued supply of HSA as one that needs monitoring, in liaison with Cumbria County Council.
- 9.33 Planned infrastructure projects outside of Cumbria could lead to increased demand for exports from Cumbria. Some of the non-highways schemes outlined above are currently anticipated to commence within the next 5 years. Cumbria currently has a 40 year landbank of crushed rock and many of the major infrastructure projects proposed within Cumbria are also anticipated to start within the next 5 years. The situation regarding timescales for these strategic non-highways projects will need to be kept under review in forthcoming LAAs, including liaison with the relevant MPA and AWP to assess whether additional aggregate will be required from Cumbria. It may be necessary to adjust

provision figures in future LAAs if more certainty can be provided on the timescale of works and amount of imported aggregate that will be required.

- 9.34 A number of highways schemes are identified, mainly in the North East region, that are expected to commence within the next 5 years. As Cumbria is an important supplier of HSA and VHSA roadstone there is a strong likelihood that demand for this particular aggregate will increase in the near future as a result. The need to monitor the situation regarding supply and demand of VHSA in particular is already addressed in Chapter 4 of this LAA. As these schemes progress (work on the CSLR has commenced; A66 dualling is scheduled to start in 2024 and also potentially the A595 Grizebeck improvements) the minerals planning authorities will liaise with the Highways Agency to establish the quantities of aggregate required to deliver these schemes, when these amounts will be needed and where they will be sourced from. This will help to build up a greater understanding of the impact of major highways schemes on demand for aggregates within the sub-region of Cumbria and to understand which other projects are likely to create significant additional demand over and above the levels captured in previous sales figures. Details currently available are included within *Appendix 1 – Other Relevant Local Information*.

Mode of transport

- 9.35 The BGS survey (AM2019 – Table 8) provides some data on the principal transport method for primary aggregates sales by region. For the North West there is a record of 9,089,000 tonnes (9.09Mt) of aggregate being transported by road with 199,000 tonnes of crushed rock being transported by rail (around 2% of all aggregate movements). There is no other record of aggregates being moved by rail or water.
- 9.36 Within Cumbria, there are a number of rail sidings and wharves that are used for transportation of aggregates. The ports at Workington, Maryport and Barrow provide opportunity for transportation of minerals to some destinations outside of the county by water but not necessarily for the main export destinations identified for Cumbria in the North East, Yorkshire and Humberside. Aggregate Industries bring aggregate by sea into Barrow Port from its quarry at Glensanda, near Oban on the West Coast of Scotland.
- 9.37 Increased use of rail and, if appropriate, water is to be encouraged. The 2022 annual survey forms used for this LAA did include a request for information on transportation methods used. The majority of responses confirmed that transportation is 100% by road. For 2022, both Shap Beck and Shap Blue reported that around a third of their sales were transported by rail, with the remainder by road. As noted in Chapter 8, there are existing established rail facilities within the county and the recently approved rail loading facility at

Cavendish Dock, Barrow has been used for some transportation of aggregates. At Kingmoor Marshalling Yards the materials being processed for recycled aggregate are brought in and exported out by rail.

Appendix 1 – Other Relevant Local Information

Planned infrastructure projects

- A1. Following LGR in April 2023, the two new unitary authorities of Cumberland Council and Westmorland and Furness Council will each be preparing a new Local Plan for their area. Work on preparing these Local Plans will include reviewing the economic growth aspirations for each area and planned housing and infrastructure requirements will evolve to support this. Currently there are a number of infrastructure projects already committed as well as housing delivery figures from the Local Plans previously prepared by the six district councils and the Lake District National Park Authority. For this LAA it is these existing commitments that will inform consideration of future need for aggregates within the sub-region of Cumbria.
- A2. Current highways proposals moving towards development phase include the Carlisle Southern Link Road (CSLR), A590 and A66 road enhancements. Planning permission for the CSLR was granted in October 2020 and work commenced in 2023. The A66 dualling is expected to start 2024/25 with the DCO submitted in 2023 and a decision now due in March 2024. Planning permission was also granted in October 2022 for the Grizebeck Improvement Scheme with a DfT decision on funding for this expected early 2024.
- A3. It is understood that the aggregate requirement for the A66 dualling will be around 1.6Mt for the earthworks and roadworks, with an additional 140,000 tonnes of aggregate required for the concrete. The majority of this will be required within the next 3-4 years. Of the 1.6Mt, approximately 25% will be required for the west side of the A66 and sourced from Shap quarry in Westmorland and Furness, with the remainder being required for the east side of the A66 and sourced from quarries in County Durham. The high specification roadstone required for the surface dressing will be sourced from outside of the sub-region of Cumbria. There is also a commitment to use recycled/secondary aggregate where appropriate (including quarry material that would not be sold as primary aggregate) to try and reduce the total requirement for primary aggregates on this project where possible.
- A4. The Cumbria Transport Infrastructure Plan (2022 – 2037)⁹ sets out a range of ambitions for transport which, alongside measures to decarbonise the transport networks, include a number of road and rail network improvements across the county. Some of these schemes are already referenced above; others include the potential Kendal Northern Access Route. The impact of HS2 (which had included some rail improvements around Carlisle and would have required track ballast aggregate) is no longer a consideration

⁹ [Cumbria Transport Infrastructure Plan](#)

following the announcement in October 2023 that the route will not extend beyond Birmingham. The subsequent announcement of the Network North proposals for transport improvements could accelerate delivery of road and rail improvements within the sub-region of Cumbria.

- A5. The CSLR is being developed to enable the strategic growth to the south of Carlisle. An urban extension – St Cuthbert’s Garden Village – is proposed which could accommodate up to 10,000 new homes along with new schools and community facilities. Work is progressing with the Masterplan published October 2020 and the Design DPD adopted in April 2021. Further consultation on the St.Cuthbert’s Local Plan is currently anticipated late 2023/early 2024. Construction of the first Garden Village sites is expected to commence within the next 5 years; delivery of the full scheme would extend beyond 2030. This will comprise a significant part of housing and infrastructure development for the new Cumberland Council.
- A6. In 2019 Cumbria County Council resolved to grant planning permission for construction of a new underground metallurgical coal mine to the south west of Whitehaven (Woodhouse Colliery, to be operated by West Cumbria Mining). The application was then referred to the Secretary of State for determination and, following a Hearing in September 2021, was given approval in December 2022. Further legal challenge followed and, at the time of publishing this report (September 2024), it had just been announced that a High Court ruling has now overturned and quashed this decision so the scheme does not currently have consent. Much of the aggregate resource was expected to be met by using materials extracted from the site, however some additional aggregates could be required for any ground levelling works and setting of foundations for the buildings. This development proposal is also located within Cumberland Council.
- A7. Looking further ahead, the nuclear and green energy industry will feature in Cumbria’s plans for future growth. Decommissioning of Sellafield has commenced and there are a number of new nuclear opportunities being progressed nationally which may potentially locate within that area although no proposals are confirmed as yet. The siting process for the Geological Disposal Facility (GDF) has commenced and there are currently two community partnerships within Cumberland where investigations are continuing, as well as one in Lincolnshire.
- A8. Capping of the vault 8 at the Low Level Waste Repository (LLWR) in Cumberland will require importation of aggregate over the next few years.
- A9. Ambitions to develop the ‘Energy Coast’ (between Silloth and Barrow-in-Furness) transforming the economy of West Cumbria to support the energy sector will potentially see significant new development and associated infrastructure requirements both on and

off-shore in the future. This will impact on both Cumberland and Westmorland and Furness councils.

- A10. In Westmorland and Furness major growth is anticipated in and around Barrow due to new contracts awarded at BAE Systems Ltd requiring a substantial increase to the workforce and associated housing and infrastructure requirements to support this, including a current Site Allocation for Marina Village with potential to accommodate up to 800 houses in total. More detail on the scale and nature of developments will emerge as work progresses on the new Local Plan.

Planned housing growth

- A11. The former six district councils currently have commitments to deliver over 30,000 new homes through their Local Plans, with an annual provision target of 1,663 across the county. Details of individual council requirements are set out in the table below. Information on housing delivery (obtained from the district's annual housing completion figures, where available) is also included as an indicator of whether planned housing delivery targets are being met. As work on the new Local Plans for Cumberland and Westmorland and Furness progresses these figures may change but for the time being are considered a reliable indication of anticipated growth.

Cumberland

LPA	Adopted/Emerging Policy	Housing figures	Annual provision	Plan period for supply	Housing completions 2022 ¹⁰
Allerdale	Allerdale Local Plan Part 1 Adopted (July 2014) Policy S3 Part 2 Site Allocations Adopted July 2020	5,471	304	2029	240
Carlisle	Carlisle District Local Plan 2015 – 2030 Adopted (November 2016) Policy SP2 St.Cuthbert's Garden Village Local Plan in preparation	9,606	478 (2013-2020) 626 (2020 – 2030)	3356 by 2020; 6260 by 2030	360

¹⁰ [LiveTable253a.xlsx](#)

LPA	Adopted/Emerging Policy	Housing figures	Annual provision	Plan period for supply	Housing completions 2022 ¹⁰
Copeland	Adopted (December 2013) Policy SS2 <i>Copeland Local Plan – 2021 – 2038 Publication Draft Jan -March 2022</i>	4,150 <i>Target - 2482 Plan for – 3,400</i>	230 (5 yrs) 300 (10 yrs) ¹¹ <i>Target- 146 pa Plan for 200 pa</i>	2028 2038	140
TOTAL					740

Westmorland and Furness

LPA	Adopted/Emerging Policy	Housing figures	Annual provision	Plan period for supply	Housing completions 2022 ¹²
Barrow	Barrow Borough Local Plan 2016 – 2031 Adopted June 2019	1,785	119	2031	100
Eden	Eden Local Plan 2014 – 2032 Adopted (October 2018) Policy LS2	4,356	242	2032	290
South Lakeland	Local Plan Allocations – adopted December 2013 Currently working on Local Plan review (end date 2040)	5,264	290	2036 ¹³ (2040)	320
TOTAL					710

¹¹ Annual provision with 'market uplift' anticipating housing requirements associated with the Moorside development

¹² [LiveTable253a.xlsx](#)

¹³ SLDC adopted Local Plan period ends 2025; the current suite of LP documents will be combined to form single Local Plan 2016 – 2036 due to be adopted 2021; SHMA covers new LP period 2016 - 2036

LDNPA

LPA	Adopted/Emerging Policy	Housing figures	Annual provision	Plan period for supply	Housing completions 2022 ¹⁴
Lake District NPA	Lake District Local Plan (2020-2035) Adopted May 2021	1200	80 pa	2035	(inc. in above by district)

Total

Total housing provision	-	32,102 (31,352 with Copeland's revised figures)	1,961 (1,861 with Copeland's revised figures)	End of latest Plan period = 2035¹⁵	1450
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Planning constraints in neighbouring Mineral Planning Authorities

- A12. As mentioned in the main report, the Yorkshire Dales National Park contains four high specification roadstone quarries, some of which have planning permissions that will expire shortly and well before the end of the Plan periods. At this stage it is considered likely that applications for time extensions to continue extracting the permitted reserve would be permitted. If applications are not forthcoming there will be additional pressure on the reserve in Cumbria.
- A13. The Lake District National Park Authority has been asked to consider designating an Area of Search for very high specification roadstone on land near to Ghyll Scaur. This was not taken forward in its Local Plan and the current policies would not permit extraction at this time.
- A14. Force Garth dolerite quarry in County Durham provides an exceptionally hard and durable roadstone aggregate but the majority of the permission is within the Moor-House Upper Teesdale SAC and North Pennine Moors SPA. A ROMP application (8/IDO/6/1/2) was submitted in 2011 and still remains undecided. There has been some concern that it may not be able to continue operating to its original capacity due to revisions required to avoid any adverse effect on qualifying features of the designated

¹⁴ [LiveTable253a.xlsx](#)

¹⁵ As above, SLDC adopted Plan date only 2025 but work to revised annual housing provision figures

areas. Again, any reduction in capacity would impact on demand for the reserve within Cumbria.

Market commentary

- A15. The Mineral Products Association¹⁶ report that sales of primary aggregate fell during 2022, having experienced an initial rise during 2021 coming out of the Coronavirus pandemic and the restrictions that imposed on the economy. Due to current economic uncertainty, the MPA forecasts further decline in 2023, hopefully beginning to recover again in 2024. Private housing, which has a 22% share of overall construction output in Great Britain and is a key driver of mineral products demand, is expected to see falls of 11% in 2023 and 1% in 2024.
- A16. The sales trends in Cumbria are broadly consistent with the national picture. Based on 2022 figures, sales of crushed rock (2.66Mt) have dropped since 2021 (2.68Mt) but are still higher than 2020 (2.59Mt) although considerably lower than 2019 (3.01Mt). Sand and gravel sales in 2022 (0.80Mt) have dropped since 2021 (0.85Mt) but are still higher than 2019 and 2020 (0.77Mt and 0.75Mt).
- A17. Regionally, sales of crushed rock in the North West fell by 11.4% in 2022 from 2021 (compared to a fall in sales of 7.7% for Great Britain as a whole). In the sub-region of Cumbria the drop in sales was 0.75%. For sand and gravel, sales in the North West fell by 12.3% in 2022 from 2021 (compared to a fall in sales of 9.3% for Great Britain as a whole). In the sub-region of Cumbria the drop in sales was 5.9%.
- A18. Cumbria continues to produce more aggregates than it requires and exports mainly to elsewhere in the North West, but also to other regions including the North East, Yorkshire & Humberside and Scotland.
- A19. Cumbria has the only quarry in England which produces very high specification roadstone (Ghyll Scaur) and consequently there is a national market for this resource which will be affected by major infrastructure developments across the UK and not just within Cumbria.

¹⁶ [Regional overview of construction and mineral products markets in GB Spring 2023.pdf \(mineralproducts.org\)](#)