

Never assume supply

'Told you'! It should be no surprise that with so much pent-up demand being unleashed at once, that pre-Covid supply capacities and rhythms would be tested as the economy recovered.



VIEWPOINT by MPA Chief Executive
Nigel Jackson

But for the mineral products industry and its family of essential materials, that's mainly affecting bagged cement for builders who buy from merchants. To put this in perspective, that particular material 'flow' represents about three days in the annual pipeline of overall mineral product supply. An important three days, admittedly, because of the amplifying effect it has across the domestic home improvements and landscaping markets. I have every sympathy with clients, builders and merchants as they all struggle to recover from the rigours of the last 15 months by investing in their homes or businesses and our industry is doing all it can to ensure that their demand is met.

The situation forms part of a far bigger picture. In the UK we consume around 15 million tonnes of cementitious materials per annum, around 3 million tonnes in bags and the balance of 12 million tonnes in bulk, it sounds like a lot. But it's not cement that should be our sole worry. It is the aggregates that are mixed with cement to make concrete and mortar and with bitumen to make asphalt for our roads. In a typical year we consume around 250 million tonnes of aggregates, a million tonnes for every working day – one million tonnes extracted from quarries, processed, stocked and delivered, mainly loose and in bulk. Eighty times the tonnage of cement currently in focus.

Mixing cement and aggregates with water makes concrete and the inconvenient truth is that this amazing product is the most sought-after man-made material in the world. Not by accident. Its versatility and outstanding properties mean that it is hard-wired into the foundation and fabric of our built environment, both onshore and offshore, above ground, on the ground and beneath our feet.

Much as many would like to 'wish away' concrete, that is unlikely to be realistic by dint of the sheer scale of the substitution challenge and the probability that there would be no environmental gain arising. Timber foundations, basements, bridges, tunnels, flood defences and wind turbine bases simply won't cut it.

Even if eliminating concrete were a good idea, which it patently is not, you could not deforest enough timber (as if we aren't doing far too much already) or mine, process and supply enough steel to replace over one million tonnes a day of aggregates, concrete, mortar. The UK is fortunate that its rich and diverse geology enables us to produce virtually all of our mineral products needs locally. Furthermore, the UK also happens to be amongst the least hungry developed economies in terms of mineral product consumption per capita. And we're also one of the greatest when it comes to recycling waste into aggregates and restoring land to improved agriculture or nature conservation.

Most policy makers do not appreciate that without a steady and adequate flow of aggregates construction, manufacturing and many other sectors would really, really struggle.

That is why Sir Ralph Verney's Royal Commission back in 1975, 'Aggregates the Way Ahead' found the need for a mineral planning policy system to be created to ensure that the economy received the aggregates it needed.

And so, the 'essentiality' of aggregates and quarrying was born and over the years has evolved into the 'Managed Aggregate Supply System' or MASS. The system has worked reasonably well over the last 45 years but as local authority planning departments lose minerals expertise, capacity and capability, and more planning and environmental constraints emerge in a constantly changing (and some say failing) planning and permitting system, operators have to play their cards slower and more carefully. Planning applications typically cost between £100,000 and £1 million and planning determinations can typically take up to three years to be made. In the event that your proposed site is included in the minerals local plan, and you time your application right and actually secure a planning permission, the pain of Environment Agency permitting and licensing kicks in, adding duplicated costs and wasted time.

The system has become a 'can't do' process rather than 'can do'. Many Ministers have attempted to 'fix a broken planning system' mainly predicated on trying to sort out housing under provision but they have all failed and probably always will because as fast as they preach growth and talk a good game, 'localism' slows it all down.

Consequently, replenishment rates for sand and gravel quarries have been running at around 60% for the last 10 years and even the larger more strategic and rail-linked rock quarries are having to invest more effort and resources to extend their lives. Ultimately you can't under replenish indefinitely without supply strains, particularly as MPA estimates that around 3 billion tonnes of reserves will be required to supply the demands created by society up to 2030, like it or not.

"We consume around a million tonnes of aggregates every working day."

Given the significance of mineral products as the largest physical flow in the economy one might have imagined that Government would be more pro-active in ensuring supplies are secure, particularly as they are predominantly indigenous, and the import

risk is low. It may be right, as well as fashionable, to aspire to lithium mines in the South West, but the first aim should be to support the extraction sites we already have whether aggregates, cement, china clay, ball clay, silica sand, dimension stone or industrial or agricultural limestone. No surprise then that the industry had to develop a 'UK Minerals Strategy' in 2018, which was supported at launch by BEIS, and which is aimed at keeping the strategic role the industry plays in the minds of policy makers and addresses the future long-term provision of minerals and mineral products.

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As local planning authorities increasingly declare climate emergencies and local politicians and opposition groups drop the net from 'net zero', carbon-based opposition to future quarries and quarry extensions is likely to increase straining supply chains even further particularly in periods of high demand.

If the current temporary shortages of bagged cement have demonstrated anything it is that only when the construction industry can't be served does it 'make the link' to its supply chain and what makes it tick. Disruptive as longer lead times and allocations currently are, imagine how much worse this would be if just one of our major rail linked rock aggregate quarries delivering millions of tonnes per year becomes exhausted, is not replaced or cannot secure the next extension. We have not permitted one large major rail linked rock quarry for well over a generation and no obvious new ones are in the pipeline. From quarry concept to operation for a major new quarry would take between 10 and 15 years to become a reality. There are no quick fixes, not even imports.

The major rock producing and exporting regions such as the South West and East Midlands prop up demand in London and the South East so 'localism' is not really a sensible approach to what is a seriously strategic national supply network. Where local land-sourced sand, gravel and crushed rock can't supply recycled and marine

aggregates fill the gap, but they too are not without their own challenges.

Our current MASS based supply model knits all these factors together. It is a genuinely effective strategic approach to a fundamental need of the economy and society yet barely registers in Government as worthy of investment in data and adequate resources. For Government, planning means housing, with no shortage of both data and resources, although the link back through housing's supply chain is not made and perversely housing targets are not met (even in a subsidised sector!)

In truth aggregates mineral planning (as well as underpaid and undervalued local authority planning officers) should be acknowledged as being critical to national infrastructure as should all mineral products. There is an old industry maxim 'if you can't grow it, you have to dig it'. Can we really contemplate life without minerals? In reality essential minerals and mineral products may be more critical than we think. This will not just be about rare earths for batteries and electronics.. Understanding supply chains is going to become an increasingly important feature of our national decarbonisation debate as we try to work out how to best meet our economic needs and have a decent quality of life on the way to net zero by 2050.

“There is an old industry maxim ‘if you can’t grow it, you have to dig it’. Do people still not realise what their world is made of?”

One recurring truth will emerge. None of us can ever believe that what we consume will necessarily be supplied indefinitely, but some supplies will emerge as more important than others. Amongst those are mineral products and now more than ever Government must acknowledge that there is a 'national need' and ensure that the strategic system that has enabled a steady and adequate supply for the last 45 years continues with the right investment and resources.

Availability of resources is no good without access. Access is conditional upon planning. No planning means no mineral extraction and no business. If we reach that point, shortages of bagged cement will look like a stroll in the park.

Never assume supply. You have been warned.