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The magazine of the Mineral Products Association

mineral

products today



Shifting perceptions

a new approach to quarrying



Powering up
and cutting carbon

National Nature Park
we launch a new UK asset

Graded grains
fitter footballers

WELCOME



IN welcoming you to this issue, let me also introduce myself as MPA's new chairman. I come from a long standing, Kent-based independent business that has always set great store by building relationships across all stakeholders, underpinned by really delivering on

commitments, not least in quarry restoration.

These characteristics were on show at the recent Restoration & Biodiversity Awards ceremony where I know the industry-wide pride I felt was shared by all my colleagues who were present. What we saw was not just a universally high standard of work by members large and small but an acknowledgement by all parties that this industry has more to offer the nation than has so far been recognised.

The recognition of biodiversity as a distinct facet of our work has done so much to change attitudes while boosting our own confidence. There are few other industries that meets society's most basic needs whilst addressing such important environmental issues. The wealth of habitat creation capability that we saw at the MPA event was

both surprising and inspiring, even to those of us on the "inside".

How good it was also to hear some of the UK's most knowledgeable nature experts so evidently excited by our work – and our potential. Partnership is most certainly the key to further progress in the further development of a nationwide network of nature sites.

As this issue goes to press we will be gathering a rather different audience for our Health & Safety Awards. Once again, I feel confident we will be seeing best practice spread right across our membership and on that occasion, the common cause is one that potentially saves lives and avoids injuries. Nothing is more important.

Bill Brett, Chairman, MPA

Cementing the future

THE UK cement industry is increasingly vulnerable to overseas competition and needs Government action to create a level playing field in terms of the cost of regulation and unilateral 'green taxes' that overseas competitors do not face, says MPA.

The concern is raised in a new landmark document for the industry. *Cementing the future – sustaining an essential British industry* sets out the importance of cement and concrete to the UK economy and society.

"Our shops, factories, offices, homes, schools, hospitals and much more all depend on this critical material, yet the industry is struggling to compete in the face of ever increasing costs, some of which are centrally imposed by government," says Dr Pal Chana, executive director of MPA Cement. "Our strategic significance to the economy cannot be overstated."

He added: "The Government's own economic growth plans are predicated on a substantial increase in the construction of infrastructure and housing. We cannot allow the supply of this essential material to be left to the vagaries of the international trading markets; especially not when we have a deep-rooted industry here in the UK with factories in mainly rural locations providing much needed jobs."

Cementing the future calls on the government to recognise the industry's strategic significance and acknowledge its role in delivering a low-carbon future. The UK cement industry has published a road map to reduce greenhouse gases by 81% by 2050, the first national cement industry to set out such a vision.

The document seeks an economic climate of investment security together with reduced regulatory uncertainty and a consequent reduction in the cumulative cost burden. It



Concrete at its best: the new Westminster underground station

also demands the lifting of unilateral green taxes.

In return, the industry says it will deliver a secure supply of high quality domestic cement, commitment to the Government's building programme, and investment to secure UK jobs.

Mineral Products Association

Gillingham House, 38-44 Gillingham Street
London SW1V 1HU

Tel: 020 7963 8000 Fax: 020 7963 8001

Email: info@mineralproducts.org

Web: www.mineralproducts.org

Chairman: Bill Brett

Chief executive: Nigel Jackson

Mineral Products Today

Managing editor: Elizabeth Clements

Email: elizabeth.clements@mineralproducts.org

Editor: Barrie Hedges

Muddy Boots PR

Salmon's Leap, Calne

Wiltshire SN11 9EU

Tel: 01249 731007 / 07899 923756

Email: barrie@muddybootspr.co.uk

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Cover photo: Tourist attraction – the Coldstones Cut sculpture at Pateley Bridge Quarry (pages 5 and 6)

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Safety summit for disused sites

MPA has taken the initiative in bringing together key parties to discuss the worrying problem of public safety in disused quarries and other open water bodies.

The move comes at a time when attention is increasingly being focused on deaths and serious injuries involving sites that are no longer under the control of quarry operators. This year's hot summer saw a particular increase in water-related issues, but rock climbing, trail biking and the quest for birds' eggs all remain serious issues.

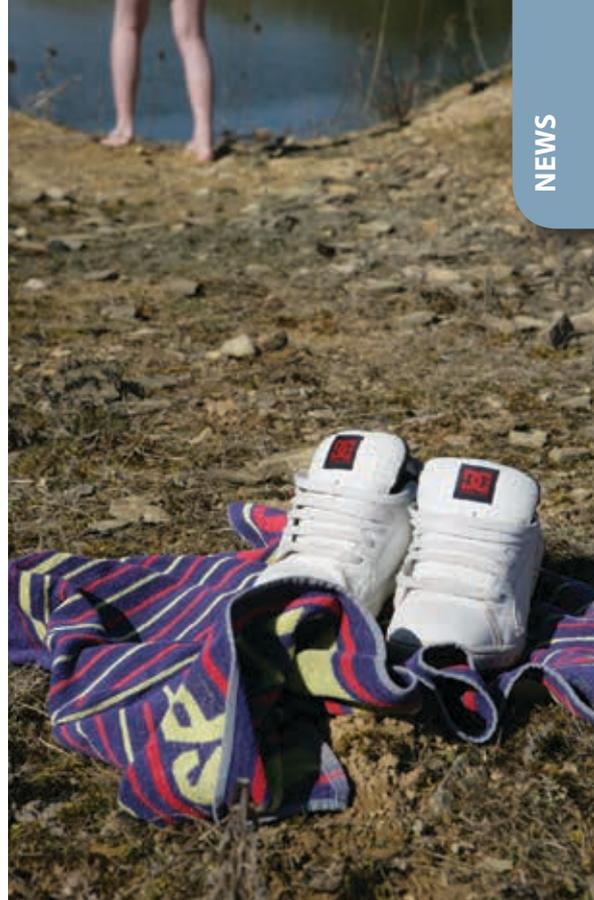
As this issue went to press, MPA was convening a summit involving other key stakeholders such as emergency services, land owners, local authorities, sporting, safety and environmental organisations to explore how best to manage trespass issues.

The purpose of the summit is to provide

a forum for sharing ideas, information and best practice with the aim of finding a more effective way to mitigate the risks inherent in disused sites and to better communicate safety messages to the public. It is also hoped it will lead to better cooperation and communication between the various stakeholders.

"We hope that, by bringing all the major stakeholders together to share their knowledge and experience, we can effectively tackle the public safety issues associated with these sites," says MPA chief executive, Nigel Jackson.

"Our members devote a great deal of time and effort to getting young people in particular to understand the hazards of trespass on their sites. But we cannot rest easy while lives are being lost at sites outside our control. We must prepare now for what 2014 may bring."



Welcome for new cycle safety moves

LATEST Government and Transport for London moves to tackle the issue of keeping cyclists safe around lorries have received a broad welcome from MPA.

The new momentum comes in the wake of MPA's own initiative, announced earlier this year, when it stepped up a long-standing campaign by introducing a raft of measures including a requirement for new members' lorries to be fitted with blind spot elimination devices. The MPA scheme also calls for side under-run guards, class VI mirrors, audible left-turn warnings and rear signs. Existing vehicles

must be fitted with similar equipment levels within a maximum five-year period.

MPA has similarly taken the initiative on both driver training and cyclists awareness events, with a succession of Cycle Safe awareness days in key towns and cities. Working closely with the police, the events invite cyclists to take a lorry driver's view of safety.

The MPA's campaign dovetails well with the measures announced in September by Transport Minister Stephen Hammond, London Mayor Boris Johnson and London's Transport Commissioner, Sir Peter Hendy.

Their plans include a London-based industrial HGV task force to raise awareness and take action against the minority of dangerous operators, vehicles and drivers. Consideration is also being given by the London Mayor to introducing a levy on any lorry not fitted with basic cyclist protection equipment.

MPA chief executive, Nigel Jackson, welcomed the announcements in principle and said he looked forward to seeing the detail to ensure that the necessary checks and balances are in place and that responsible operators are supported.

"The announcements align with our own Cycle Safe campaign which we have been running for over two years," he said. "We believe it is essential that all parties work together to make our roads safer. It is a long term challenge but this industry is very committed to playing its part and looks to others to do likewise."

The industry has continued to work closely with Sir Peter Hendy, the Commissioner of Transport for London. It has particularly welcomed the review of the safety regulations relating to volumetric concrete mixers which are exempt from some of the basic requirements, such as side guards, that affect general HGVs.



Viewpoint

With MPA chief executive Nigel Jackson

Recovery needs nurturing

AFTER two successive quarters of growth, there is now some justification for optimism that our sector is about to see welcome relief from the pain of five long years of austerity.

It is too soon to say with any certainty that we are “out of the woods”, but there is at least a chance to think more positively and to plan. Re-investing in mothballed capacity is one thing; making the long-term commitment to new capacity is quite another. It requires confidence that rising demand is sustainable and will not flounder after the next election.

Whilst there appears to be a recognition that housing, energy and infrastructure decisions should be less prone to political whim, right now that is not the case. Politics are costing us dear in areas like energy where successive Governments have failed to face harsh realities because of what they see as the overriding need to “green the supply

“... our more ‘localist’ planning system will finally be tested in full as developers start to put sites into the pipeline ...”

chain and make the transition to a low-carbon economy”. While there is nothing wrong with that aspiration in itself, secure and affordable supplies must be the immediate priority as we make the transition.

On housing, we have known for years about the cumulative under-build, yet we still live with an entrenched “plan-led system” which has delivered neither the plans nor the certainty required for investment. We also still have a permitting system more focused on “can’t do” than on “can do”.

The recovery will, therefore, need to be nurtured. Most commentators still doubt that the problems of the EU are resolved, or that the US economy can be brought off life support just yet. Domestically, our more “localist” planning system will finally

be tested in full as developers start to put sites into the pipeline. The cost of doing so will continue to rise due to cost recovery by the regulators and a raft of

taxes that are of limited benefit to the environment.

With the first salvos of the 2015 election now being fired, we are justified in asking some fundamental strategic questions of each of the main parties:

Will you develop a more radical industrial agenda recognising that whilst we may not be the industrial nation we once were, we can be significantly more industrial if the constraints of planning, permitting, carbon and energy policies are addressed?

Do you recognise the true economic significance of our mineral resources and their essential link to growth?

Do you really understand the needs of manufacturers, and what can you do to make a positive difference to encourage investment?

The MPA will be developing these and other themes over the next year. Natural and mineral resource issues in particular have been mainly local ones until now. That needs to change.



RAPID PROGRESS

THE concrete sector continues to lead the construction industry in transparent reporting of its sustainability performance against robust targets. The industry’s newly published sixth performance report highlights a number of key areas of leadership.

They include adopting the BES 6001 framework for responsible sourcing. Within a year of the standard’s launch 81% of concrete produced had been accredited, with the figure in 2012 rising to 89%. The industry has also opted for more rigorous health and safety metrics to support its commitment to “Zero Harm”.

Meanwhile, there has been a reduction in

the embodied carbon of concrete through investment in innovation and efficient production technologies, and a 24% increase in the proportion of production sites with certified Environmental Management Systems. It also now uses 62 times more waste than it sends to landfill.

“We have stuck to a strategy that holistically reflects the triple bottom line

of environmental, economic, and social performance,” says MPA executive director Andrew Minson. We are not just meeting but exceeding the recommendations of the Green Construction Board and leading the way in the drive for a sustainable built environment.

More detail from www.sustainableconcrete.org.uk





Launching a NATIONAL nature park

Biodiversity on a landscape scale: Hanson UK's award winning site in the Upper Nene Valley

It's a new national asset! The mineral products industry has developed a *National Nature Park* built from a fragmented network of restored sites spread right across Britain. Launched at MPA's 2013 *Restoration and Biodiversity Awards* in London, the initiative already has 50 publicly accessible sites totalling 4,000 hectares and aims to double that within the next two years.

THE launch was part of an afternoon which Environment Minister Lord de Mauley described as "fantastic". There was praise too from Paul Lambert of Natural England, and Stephanie Hilborne of the Wildlife Trusts, both of whom said the industry was providing a much needed lead to other sectors.

Announcing the National Nature Park, MPA chief executive Nigel Jackson said the web-based resource (viewable at www.mineralproducts.org) included national and local nature reserves, nature trails, visitor centres and much more. "This is an industry that is not just talking a good game – we are walking a good game," he said. "What we are uniquely delivering should make us all proud and show the way for others in Europe and beyond."

The event was hosted by Radio 4 broadcaster Sybil Ruscoe who urged the industry to "celebrate its amazing achievements". The afternoon opened with MPA chairman Bill Brett praising what members had achieved on nature conservation over 40 years – work that had continued even during the depths of severe recessions.

Stephanie Hilborne praised the strength of the partnership with MPA and the work not just

of companies but of enthusiastic employees. "We need you as an industry at the leading edge to be bringing the rest of the land-based industries with you and getting the industrial sector as a whole to understand that natural capital has been eroded."

Dr Jeremy Biggs, director of the Freshwater Conservation Trust, insisted that the future lay in connectivity and in protecting endangered freshwater habitats and creating new ones. He said that by pursuing the opportunities on just one mineral site in each county, it was possible to double or treble the area of clean water in that county.

Gill Perkins of the Bumblebee Conservation Trust, saw a "huge opportunity" in her organisation's emerging partnership with the industry. She urged operators to put in place practical work on the ground and to get employees and local enthusiasts involved in monitoring bumblebees on their land.

Hanson UK Coldstones Cut project in the Yorkshire Dales National Park (see cover and left) received a special award in addition to its highly commended award for restoration. Nigel Jackson described it as "special, different, breaks the mould, changes the game, shifts the conversation and challenges the paradigm."



Hanson UK Coldstones Cut project in the Nidderdale AONB

Restoration & Biodiversity

RESTORATION

THE experienced independent judging panel for the long-standing MPA Restoration Awards wrestled with three worthy candidates for the coveted Cooper Heyman Cup. The notable feature of this year was that two rock quarries from the north of England were in the running alongside a sand and gravel operation from the south.

The cup ultimately went to the sand and gravel contender – Lafarge Tarmac’s Ibsley Quarry on the edge of the New Forest in Hampshire. The 36-hectare site has been restored to a mix of open water conservation lakes, wetland and grassland. It is a wonderful site for nature in its own right but is particularly significant because of the way it fits into the wider strategies for the area in terms of landscape, ecology, biodiversity, access and restoration.

Lafarge Tarmac also scored a highly commended with its Threshfield Quarry entry. The site in the Yorkshire Dales National Park breaks new ground in that it is a rock quarry where the experts asked the company not

to soil and seed the bare surfaces. What they wanted instead was for nature to do the job in its own way.

The company has, however, planted trees, created three large ponds, rebuilt dry stone walls and created footpaths. Old lime kilns and other buildings are being retained for arts, heritage and business uses. The vision is of a place that becomes a tourist venue within the national park.

Tourism is also the name of the game at the other highly commended site – Hanson’s quarry at Pateley Bridge in the Nidderdale AONB (see page 5 and cover photo). The Coldstones Cut sculpture is one you walk through and celebrates not just the beauty of the area but its long association with quarrying. It is the crowning glory of a massive 92-hectare screening mound created by moving over two million cubic metres of soil.

The company also relocated large areas of high value grassland and created a series of ponds and a marsh area for amphibians.

WINNER: Lafarge Tarmac - Ibsley Quarry, Hampshire.

HIGHLY COMMENDED: Lafarge Tarmac - Threshfield Quarry, Yorkshire Dales National Park; Hanson UK in partnership with Nidderdale Visual Arts, Golder Associates, Nidderdale Plus & Harrogate Borough Council, Pateley Bridge Quarry, North Yorkshire.

AWARDS: Hanson UK & The Lakes by yoo - Coln Gravel Quarry, Gloucestershire; Lafarge Tarmac & Leicestershire & Rutland Wildlife Trust - Meadow Lane, Syston, Leicestershire; RJD & Ingrebourne Valley - Little Gerpins, Essex; CEMEX UK - Kettlestoun Mains Quarry, West Lothian; Aggregate Industries - Mill Farm Quarry, Aberdeenshire.

Lafarge Tarmac’s site in Hampshire



INNOVATION

IN the innovation category, MPA asked its members to come up with projects that have boosted biodiversity through imaginative thinking.

Smiths & Sons (Bletchington) picked up the top award with the restoration of its Ardley North site, changing the original restoration plan from agriculture to wildlife habitats. The company created a series of three overflowing ponds which in turn created six new habitats, overcoming drainage issues while protecting two geological SSSIs.

The runner-up was a Hanson project at its Whiteball Quarry in Somerset where the company responded enthusiastically to a national Buglife campaign aiming to save the native white-clawed crayfish from extinction. The challenge was first to identify a pond where the crayfish can exist in isolation from an aggressive American rival and then to improve the habitat by placing 60 tonnes of rock and brushwood faggots bound with wire. Some 35 crayfish have been released into the pond.

WINNER: Smith & Sons (Bletchington) & ESP - Ardley North Quarry, Oxon.

RUNNER-UP: Hanson, Whiteball Quarry, Somerset.

COMMENDED: Aggregate Industries - Stoneycombe Quarry, Devon; Hanson UK, Batts Combe Quarry, Somerset; Lafarge Tarmac - Langford Lowfields Quarry, Notts; Aggregate Industries - Torr Quarry, Somerset; Golder Associates & Biffa - Eye Landfill, Cambs; CEMEX UK - Parkfield Quarry, Rugby; Aggregate Industries - Chard Junction Quarry, Dorset; Lafarge Tarmac - Eaton Hall Quarry, Cheshire; Bathgate Silica - Arclid Quarry, Cheshire.

Pond creation by Golder Associates



Awards

INDIVIDUALS

INDIVIDUAL enthusiasm has a major role to play in the success of the industry's work on restoration and biodiversity. The importance was recognised with awards to five men who have each "gone the extra mile" for a cause they believe in.

The Butterfield Trophy was awarded to Phil Harding (pictured) of the Brett Group who, in 24 years as farms and restoration manager brought a number of imaginative new ideas into play.

The other awards went to: Hanson's Tim Harvey (see page 16) for enormous hands-on enthusiasm and a series of practical initiatives; Sam Tarrant from the RSPB and CEMEX UK, who has provided best practice conservation for over 1,350 hectares; Edward Dixon of Lafarge Tarmac for his work as biodiversity champion for Northumbrian sites; and Peter Steffens of Smith and Sons (Bletchington) for piloting a project that transformed a dried out ditch into a nature reserve.

WINNER: Phil Harding, Brett Group.

OTHER AWARDS:

Tim Harvey, Hanson UK.
Sam Tarrant, RSPB and CEMEX UK.
Edward Dixon, Lafarge Tarmac.
Peter Steffens, Smith and Sons (Bletchington) Ltd.

Full of new ideas: Phil Harding



CEMEX UK's site at Attenborough – a stunning 145-hectare nature reserve

LANDSCAPE SCALE

RUN in association with Natural England, the Landscape Scale Restoration attracted high quality entries from projects that have made a difference to the cause of biodiversity well outside their own boundaries.

The premier award went to Hanson UK for its work on a network of sites in the Upper Nene Valley of Northamptonshire. Through quarrying, it has been possible to create one of Europe's newest Special Protection Areas for birds. Mineral extraction has transformed what was once intensively farmed land into a 16-mile long string of carefully managed wetlands. Although each site has significant biodiversity credentials in its own right, it is the continuous linkage into one comprehensive wetland that yields massive benefits for nature.

Lafarge Tarmac's Bayston Hill Quarry in Shropshire was the fourth highly commended site. As part of an extension in 2008, the company agreed to create a large new screening bank which has 20 hectares of UK priority habitat. The new landform has a well-used footpath along

its length. Significant biodiversity expertise has come from Shropshire Council. After only a short time in existence, the bank is making a major contribution to Shropshire's biodiversity targets. Aggregate Industries' highly commended Torr Quarry in Somerset includes no fewer than four local wildlife sites plus part of an SSSI within its boundaries. Recognising lowland mixed deciduous woodland as a priority habitat in the Mendips, the company has planted tens of thousands of new trees and is actively managing them. It has also been particularly successful in creating calcareous grassland, which has been in decline locally.

A strong relationship between CEMEX UK and the Nottinghamshire Wildlife Trust has seen the similarly highly commended Attenborough quarry in Nottinghamshire evolve into a stunning 145-hectare nature reserve with an award-winning visitor centre. As its watery environment has grown, so too has its population of bird species, which include the bittern, grasshopper warbler, great crested grebe, lapwing and oystercatcher.

WINNER: Hanson UK – Upper Nene Valley, Northants.

RUNNER-UP: Lafarge Tarmac and Shropshire Council – Bayston Hill Quarry, Shropshire.

HIGHLY COMMENDED: CEMEX UK & Notts Wildlife Trust – Attenborough Quarry, Notts; Aggregate Industries – Torr Quarry, Somerset.

COMMENDED: Brett Group – Great Stour Way and Hambrook Marshes Nature Reserve, Kent; Aggregate Industries, Glensanda Quarry, Scottish Highlands; CEMEX UK – Branton Quarry, Northumberland.

Powering up

The mineral products industry's quest to reduce both its carbon footprint and its costs has taken a significant new turn, with Government encouragement igniting a growing trend towards renewable energy installations within and alongside operational sites.

An industry that is well placed in terms of the sheer scale of its land holdings

OF all the issues bubbling away in the mineral products industry right now, one that has got a lot of people talking is to do with the weather. Not so much if it will rain, as how fast are the local wind speeds? And how much sunshine does a particular location enjoy on a good day? Given the right answers, companies large and small are looking at joining the rush for small-scale renewable energy.

Wind and solar photo voltaic head the list in terms of their potential for an industry that is well placed in terms of the sheer scale of its land holdings and the fact that many sites are already industrial in their nature and often well-screened from local communities. But ground source heat pumps are also in the

running – using buried pipes to extract heat from the ground.

The dash for renewables is driven by Government schemes that offer financial rewards for contributions to cutting carbon emissions. Smaller projects attract what are known as Feed-In Tariffs (FITs) while larger ones are eligible for Renewable Obligation Certificates (ROCs). Of particular significance is the fact that the Government target is a 15% renewable input by 2020. With the current level at more like 4%, there is a significant hill to climb. But the incentives mean that investors are ready to back a soundly-based industry which itself incurs minimal cost and risk.



Ground mounted solar panels allow grazing around



Aggregate Industries' lone turbine at Carnforth

While plans for new onshore wind energy have been facing stiff opposition around the UK, Aggregate Industries and its partner AGRenewables have achieved permission for single turbines on sites at Melbur in Cornwall, Erith in Kent and Carnforth in Lancashire. Each has a total installed capacity of 1,500kW and an average production of nearly 5,000MWh a year – enough to satisfy the needs of 1,500 homes.

The Carnforth quarry, asphalt plant and block works supplies construction materials over a wide area of the North West. It previously used around 2,400MWh of electricity from the grid, but with its turbine in place, will now take 1,000MWh for its own needs while feeding the rest to the grid. The project is part of a 2016 company target to reduce process carbon emissions by 20% compared with 2012 levels.

Meanwhile, in Rutland, Hanson UK is going the solar route. Work is now underway by principal contractor Lark Energy on the installation of more than 38,000 ground-mounted solar pv panels on land close to Ketton Cement Works. Once complete around the end of the year, Hanson will take all of the energy for its operations but will get some 30% free of charge and pay a lower commercial rate for the remainder due to the absence of “pass through” charges.

It's a win-win situation for the company, which has set up a team under Mark Cox to look at all types of renewable energy with a brief that specifies nil risk and zero capital injection. The team is working with different partners for each technology but is not at present pursuing wind. It sees the greatest potential in converting waste heat from its various cement plants into energy via processes that drive steam turbines. The

solar farm at Ketton will be the first of the company's energy projects to go live, with similar plans under consideration for its site at Chipping Sodbury in Gloucestershire.

“Some of the projects we are looking at could take three to four years to bring to fruition but they will bring about significant reductions in our energy costs over the next ten years,” says Mark. “Over the 25-year lifetime of the Ketton project, we should save in excess of £10 million which is a very good deal given that we haven't had to outlay any capital.”

Shropshire-based Bright & Associates is an experienced landscape and mineral planning consultancy that is seeing strong renewables interest from its clients, especially ground-mounted solar pv. While requiring more space, it does score in that panels installed in grassland areas can also be grazed. The consultancy has in recent weeks gained permission for 3.5mW of power from around 11 hectares at Viridor's former landfill site in Westbury, a former clay extraction and landfill site in Wiltshire.

Principal Rick Bright says that operators often overlook one of the fundamentals – to capitalise on the grant system you have to have either have an electricity grid connection or potentially pay heavily to have one provided. But for mineral sites the grid connection is usually already available.

“The grid connection is not the holy grail in its own right. You need to speak to the utility operator to see if there is grid capacity

to input electricity, again it's not always a guaranteed 'yes'.

He adds: “Space is often the premium factor for mineral sites and thus wind turbines are an excellent use of space beyond the quarry limits because it takes less than 50 square metres footprint in most cases. Clearly, wind resource is key and this would differ for any location, but the benefit is that it creates power capable of being used within the processing plant, with excess being exported.”

Ground heat pumps in restored quarries is reckoned to be the one to watch, using the mass of residual water that usually exists to create heat.



“... we should save in excess of £10 million, which is a very good deal given that we haven't had to outlay any capital.”



Graded grains

MAKE FITTER FOOTBALLERS

MOST of us have winced at the moment that £40 million worth of prime footballer comes crashing to the ground with a bone-jarring thump. Leaving the personal suffering on one side, his club is potentially facing crippling cost from having him side-lined for weeks at a time.

It is no surprise then that the science of sports turf has turned its attention to pitches that cushion the impact. And it applies not just to the sort inflicted by crunching tackles but the everyday effect on joints for sportsmen whose short careers can be reduced further by simple wear and tear.

While a mix of silica sand and fibres has long been favoured to enable professional standard pitches to stand up to heavy wear, the experts have now come up with a variation which incorporates a three per cent mix of polypropylene and elastic fibres into the top 100mm of the surface.

MPA member Mansfield Sand is one of the companies leading the way with what it calls its *Fibrelastic* turf. "The effect is to reduce surface hardness with less consequent jarring of limbs and less risk of player injury," says managing director Jon Boulton. "But it also means an increase in surface resilience which effectively gives more energy feedback to players' feet, so they become less tired."

All of which is good news, not just for the

players, but for hard-pressed groundsmen because fibre and elastic surfaces also have the benefit of better traction and less damage. With precise use of fertilisers, irrigation and undersoil heating, top class pitches are far removed from the mud bath on which England won the 1966 World Cup.

While the mix of sand and fibre is now in use at the great majority of English Premier and Championship grounds, Mansfield Sand's *Fibrelastic* has already found favour at places like Newcastle, Brighton (pictured above) and Fulham.

The emergence of the new generation of sports and horticultural uses has been important to the UK's silica sand industry as some of its more traditional UK outlets – notably the foundry sand consumed by UK motor manufacturers – have shrunk over recent years. Found at high quality in only a few areas of the country, the high purity sand with its low impurities and narrow grain size is still vital to the manufacture of ceramics, paints, plastics, rubber, sealants and adhesives.

But it is the whole area of leisure that





Olympic pool: water filtered through silica sand



Silica sand as part of the surface for equestrian arenas

“... it also means an increase in surface resilience which effectively gives more energy feedback to players’ feet, so they become less tired.”

is increasingly driving the industry and sportsmen aren’t alone in favouring softer surfaces. Horses too are turning to silica sand with a dose of rubber for dressage rings and for everyday exercise areas that are essential when wet weather waterlogs their gallops.

Cheshire-based Bathgate Silica Sand specialises in supplying the needs of horse arenas, supplying all the elements of a sandwich which starts with stone for drainage. The sand is then laid and compacted on top of a dividing membrane. The sand can be augmented by a variety of materials such as chopped rubber and fibre with petroleum jelly to bind it into the sand.

The equestrian market was one which Bathgate turned to some 15 years ago when its more traditional foundries market fell away in response to cheap imports from places like China and Poland. Where in the 1980s there were around 4,000 UK foundries, now there are more like 400.

Bathgate’s recent successes include helping a distributor to resurface the all-weather Wolverhampton racecourse, supplying 4,000 tonnes of sand in just four days. The high quality and binding nature of its sand mean that it has even managed to sell sand to the horse-loving Arabs (in Saudi Arabia). In 15 years, the company has gone from selling 5,000 tonnes a year for equestrian use to more like 50,000 tonnes. The horticultural market is another important area of growth.

Bathgate’s general manager, David Robinson, is currently president of the Silica and Moulding Sands Association. “The recession hit our members before it affected our colleagues in building materials because of the fall away in the foundries market,” he says. “The growth in sports and leisure uses has helped to fill the gap and the fact that we have had a good summer has helped in terms of golf course and bowling green maintenance. Beyond that, we have developed our silica sand for tile adhesive and loft insulation.”

Garside Sands is another key player in the leisure market with a range that includes carpet dressing and infill sand widely used on artificial pitches. It even produces sand in rainbow colours for synthetic sports turf, ranging from green for pitches through to terracotta for tennis courts.

Part of Aggregate Industries, Garside Sands also contributed to leisure via the London Aquatics Centre which was admired across the world at last year’s London Olympics. Its role there was, however, an unseen one in supplying 140 tonnes of silica sand as a filtration medium.

The sand was laid on top of a supporting layer of gravel within a filter vessel. Incoming



A free draining and safe surface



Making way for a new pitch

water enters the filter and migrates at pressure through the filtration media, successfully removing any solids or debris.

Richard Page, general manager for the Garside Sands range says: “The composition and high silica content of our specialist sand make it an ideal medium for water filtration and we’re proud to have been involved in such a prestigious and high-profile global event as London 2012.”



It purifies sugar



... helps to make steel

Versatile lime

... FIGHTING FOR ITS FUTURE

LIME is one of the world's great unseens – a mineral that exists largely beneath our radar and yet makes life work like few other products. Name another material that is fundamental to food, water, steel, building and environmental protection. And that is to name but a few.

The lime we consume in the UK doesn't add up to a big industry – just 1.6 million tonnes of it was sold by British Lime Association (BLA) members at the peak of the "good times" in 2006. But the important thing about the lime industry is that it is British and it can satisfy all our needs, plus earn us some income from exports.

And yet it faces some significant issues right now which cumulatively raise the issue of one of the nation's oldest production lines (the Romans built with it) going abroad unless the UK Government provides some much needed support, not least by re-energising the economy and encouraging investment.

The first crippling blow for the industrial lime business came from the recession which, by 2009, knocked a 600,000 tonne-a-year hole in its market. While the recovery thus far has been only a modest one, producers have filled some of the gap by opening up foreign markets as diverse as south east Asia and

Africa as well as within Europe. In short, it has become a global player.

The industry is still, however, desperately in need of economic growth and some help in addressing the huge burden presented by energy costs and environmental taxation. Based on a process that requires kiln temperatures of up to 1,400 degrees C, its electricity costs spiralled by 48% between 2005 and 2011. Reducing energy consumption by 13% helped only to a modest extent. It also needs a long term, secure supply of gas with unconventional sources potentially in the mix, provided they can meet technical requirements and be exploited safely.

There are plenty of pluses to securing a domestic lime industry that go beyond its role in other industries and the jobs it creates. In particular, operators have invested heavily in upgrading production, using alternative sources of energy and reducing emissions. They also have a strong health and safety and community support ethos.



... cleans drinking water



... is used to make blocks



www.britishlime.org

BIODIVERSITY

New insight

GUESTS at the recent MPA Restoration & Biodiversity Awards had a rare trip around some of the contender sites courtesy of the drone technology widely used in secret military operations.

With a video camera attached to its underside and a ground-based pilot controlling its flight, the drone operated

by Go Aerial swooped low over a series of large scale sites – and reached places that otherwise could not be filmed in close-up. The result was a particular insight into large scale restoration such as that along the Upper Nene valley in Northampton where a succession of former sites have been linked into a 16-mile long water park.



MARINE

Dredging reduced

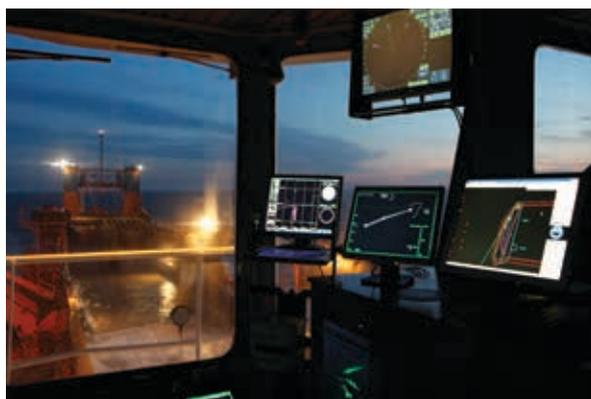
THE volume of sand and gravel dredged from Crown Estate licences around the UK reduced by more than 2.3 million tonnes to 16.79 million tonnes during 2012.

The figure is revealed in an annual "Area Involved" report produced jointly by the Crown Estate and the British Marine Aggregates Producers Association (BMAPA) to ensure transparency over mineral extraction from the seabed. The reduction is due to a new marine licensing regime which resulted in a temporary reduction in dredging from older licences. It is likely to be reversed following successful applications for

15-year renewals in 2013 and 2014.

The report shows a decrease of 563 km² in the area licensed for dredging in 2012 and of 17 km² in the area of seabed actively dredged compared with figures for 2011.

A set of charts shows the extent and intensity of dredging operations in seven different regions around the coastline.



AWARD

New look website

MPA is refreshing its award-winning safequarry.com website to maximise its appeal to workers across the industry.

Due for launch at the MPA Health and Safety Conference and Awards in mid-November, the new look website will provide an easier route to a fund of best practice advice that has been shared by companies across the industry. It is widely regarded as the main portal for safety information in the industry and hosts information from a range of key bodies.

In addition to an extensive information archive, the new site features articles, presentations, tool box talks and video clips across a broad range of topics. The site will also be the medium for issuing alerts when an incident or near-miss has occurred at a member site.

The site is widely acclaimed by its key users. Nigel Bryson OBE, formerly director of health and environment at the GMB trade union says: "Safequarry.com is an outstanding resource for anyone interested in seeing how health and safety best practice can be applied at work. I think it is the most wide ranging online sector database available today."



Visit
www.safequarry.com

INVESTMENT



Pushing ahead

CONFIDENCE is rising amongst MPA's smaller and medium-sized members with a burst of significant investment in major projects.

FM Conway has gained approval for a £10m asphalt plant near Heathrow and aims to be operational by April. The 300,000 tpa plant beside the Grand Union Canal in west London (artist's impression above) will bolster Conway's existing asphalt plant at Erith in Kent which delivers product with up to 85% recycled asphalt pavement content.

Meanwhile in Kent, the Gallagher Group

has gained permission to extend its Hermitage Quarry, protecting local employment and ensuring a steady supply of Kentish ragstone for the county's building industry. The quarrying, undertaken over a 23-year period, will be in 15 phases with progressive restoration and tree planting to create native woodland.

And in Cheshire, family owned Mansfield Sand has the green light for a new silica sand quarry between Mansfield and Kirkby-in-Ashfield. The decision will help to protect 65 direct jobs. The project includes plans for a valuable heathland corridor.

SAFETY

Best rural business

ALBION Stone has been awarded the Rural Business Award by the Crown Estate for delivering a 'strong commercial performance' in a 'fiercely competitive market'.

The company, which supplies Portland stone to projects across the UK and beyond, has switched its extraction operations from quarrying to mining using production facilities that are among the most technically advanced in the UK.

The Crown Estate judges were impressed by Albion's significant efforts and progress in reducing its environmental impacts. Pictured with the award are Albion Stone managing director Michael Poultney (left) with John Pears, mineral agent with Wardell Armstrong.



Ken Jones, director of The Crown Estate's Rural and Coastal Portfolio, described the company as "a progressive business operating in a difficult market." He added: "They maintain high standards of environmental management and operate in a sustainable manner."

COMMUNITY

On our day off

VOLUNTEERS from MPA associate member Eurovia's head office were given a day off work – and devoted it to clearing undergrowth on a local Girl Guiding campsite in Horsham.

The team, joined by two skilled operatives from Ringway's Bracknell depot and a specialist arboriculturalist from Hounslow

Highways, took part in the volunteering day following a plea for help from the Guides when their grounds became so overgrown that they lost their picturesque view of a lake.



The Eurovia volunteers set about removing and replacing a fence and clearing weeds, brambles and overgrown vegetation. Existing ash trees that were overhanging the pond were coppiced and younger saplings removed. Salvaged wood was stacked for future use in camping and craft activities.

LOYALTY

Honouring Roy

THE dedication of a long-serving Lafarge Tarmac employee has been recognised with the naming of a railway engine in his honour.

The latest addition to the rolling stock at the company's railhead at Barrow-upon-Soar in Leicestershire, proudly boasts the name Roy-Don-Clive, after the site's assistant

manager, Roy Clive Newport.

An employee for almost 32 years, Roy, or the 'Don' as he is affectionately known to his colleagues, is as pleased as punch with the tribute.

"It is a real treat to see my name on the new loco," he says. "It is a real honour because I'm not royalty and I'm not famous."



SAND

Life's a beach

THE beach was definitely the place to be during the hot summer – and you could find one even in London thanks to the Day Group.

The company supplied 150 tonnes of its finest washed leisure sand to the Roundhouse venue in Camden for creation of a five-week beach which was completed with deckchairs, beach huts, ping pong, live music, food and drink. And after some 40,000 people had enjoyed its facilities, Day took away the sand for recycling as cable ducting.



CANAL

Missing link

THE Gloucestershire-based Cullimore Group played a vital role in the completion of an important canal restoration project at Capels Mill in the Cotswolds. This work is part of a £2bn project to connect two of England's greatest rivers, the Severn and the Thames, for the first time in 70 years.

A new canal measuring some 325 metres had to be created, running through a former landfill site and under a railway viaduct. Cullimores removed 7,000 tonnes of inert material and

transported 5,000 tonnes of stone into the project. The company then poured 3,600 cubic metres of concrete into the structure to create the new stretch of canal which includes an area where boats can pass and turn.



photo courtesy Michael Gallagher

SAFETY

Safety push

MPA Wales is putting pressure on "collect trade" customers to take a more consistent approach to health and safety.

A pilot scheme is using new MPA guidelines as the basis for a pilot scheme at South Wales quarries and asphalt plants to ensure that the correct personal protection equipment is worn and site safety rules adhered to. The scheme focuses on smaller vehicles which collect from members' sites and include local authorities, utility companies, builders and landscapers.



VISIT the offices of most quarry managers and the walls tend to be lined with working plans and aerial photographs. Tim Harvey's office is rather different – it is decked with dozens of photos of wildlife taken around the sand and gravel site in North Yorkshire for which he is responsible.

Tim (one of our biodiversity award winners on page 7) still manages to find space for important site management documentation. But that is dominated by often stunning photos which demonstrate the sheer extent of biodiversity at Hanson's Wykeham Quarry close to the east coast just a few miles from Scarborough.

"It all started because we need to keep a log of biodiversity which was growing all the time as our restoration progressed," says Tim. "I decided there had to be an easier way, so I just started snapping with my old Fuji, which also logged the time and date. Putting them on the wall grew out of that. The trouble is the walls aren't big enough – I have to take something down to put new ones up!"

With monitoring help from the local naturalists trust, the species on Wykeham's list have grown steadily from 70 to 122. And with a detailed biodiversity action plan which

makes the site ever more attractive to wildlife, the pictorial database will undoubtedly grow further. Key targets include the white-clawed crayfish, the water vole and wading birds, with the bittern as an ultimate goal.

The habitat creation plans include battering banks that go underwater to make them ideal for wading birds, applying seed that provides pollen to attract insects, and creating reed beds on previously lifeless silt lagoons. The team is even creating small "canals" for water voles – so far there have been sightings but no burrows.

"I am not a twitcher," insists Tim. "I have been interested in birds in particular since I was given an I-Spy book as a boy. And I don't really consider myself a photographer either – I just keep it on automatic and snap away."

"I like to think the wall is a good advertisement for the industry. People think I am joking when I say they were all taken on site."



My photos ... OF MY QUARRY