

Summer 13 | Issue 7

The magazine of the Mineral Products Association

mineral

products today

Accelerating
delivery
we need faster growth now



Giant step
boosting the Causeway

Ecosystems services
nature's business

Staying safe
industry action

WELCOME



AFTER one of the worst winters in living memory, most of us will have found ourselves dodging around the potholes that pock mark our roads. It is startling to learn that councils in England and Wales have spent not just £113 million in the past year on repairing the holes but a total of £45 million on compensation and the staff time that goes with it.

While a winter like the last one is bound to take its toll, the reality is that our roads are in a fragile underlying state and that proper investment in bringing them up to standard would actually save money in the longer term. Patching up can only ever be a short-term remedy.

The ruts in the roads are just one of the issues that we focus on in this issue. Inevitably, we look closely at what the last Budget means for our industry – but also for the nation as a whole. Investment in infrastructure is crucial to us all because construction is a well recognised means of injecting growth into an ailing economy. At the same time, we recognise that the imperative of reducing the deficit dictates that we cannot live beyond

our means.

What our industry (and indeed most others) needs most right now is a dose of confidence because, given that, we will be encouraged to invest in the future. At the moment many companies are standing back wondering whether it is safe to spend.

Operators right across the mineral products industry have faced a particularly difficult time over recent years, not just because of the recession but because of the cumulative effect of high energy costs and unilateral green taxes not faced by European competitors. For all of us, renewed confidence in the UK is essential.

Dyfrig James, Chairman, MPA

Positive steps

MPA has welcomed measures in the March budget which it says have given the industry the prospect of a much needed boost.

Particularly welcome were the decision to continue the freeze of the indexation of the Aggregates Levy until April 2014 and also the decision to introduce a Climate Change Levy mineralogical and metallurgical exemption for energy intensive industries such as cement and lime.

While the Chancellor did not explicitly state which industries would benefit from the exemption, the cement and lime industries have set out their case to the Treasury and will actively participate in the consultation process that the government will now undertake before publishing draft legislation later this year for the Finance Bill 2014.

Pal Chana, executive director MPA Cement, said, "This is welcome news for our members

who have been struggling under the weight of a cumulative cost burden of regulation and environmental taxes. If these essential industries are to remain competitive and attract investment they have to be able to compete on a level playing field with others, such as France and Germany, who already exempt their metallurgical and mineralogical process from energy taxes.

MPA chief executive Nigel Jackson said that, taken as a package, the Budget had some welcome features for the industry, especially following the additional investment in roads announced in the autumn. The association had lobbied hard on the two key levy issues and also on the need for savings in current account spending being invested in capital projects.

"Government is clearly listening and understands that investing in infrastructure and construction is key to securing growth," he said. "The issue remains of ensuring that



Energy taxes make the UK cement and lime industries less competitive

cash flows into action on the ground, to help improve confidence and induce private sector investment, which is needed to accelerate growth in demand.

"We will continue to work with Government to help them achieve its aim of reducing the deficit whilst securing growth."

Accelerate now – see page 5

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Cover photo: Work on high-speed railways can deliver economic growth.

Photo courtesy Stanton Bonna

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Failing to deliver?

THERE are early signs that, a year after its launch, the National Planning Policy Framework is failing to deliver up-to-date local plans to meet mineral operators' needs, says MPA. As a result, companies are not risking costly planning applications and reserves of aggregates in particular are dwindling, says MPA.

The association says that, with planners and others struggling to interpret and implement the contents of the new framework, decision-making is inconsistent. With less than 50% plan coverage at core strategy level and under 20% with complete minerals development frameworks, the situation is said to be becoming critical. The resulting uncertainty amongst mineral developers is said to be undermining investment.

MPA chief executive Nigel Jackson says that clarity and certainty are key components in the investment decision-making process. But for all the good intentions behind the

NPPF, interpretation and implementation are proving variable.

"The NPPF needs to be given proper weight," he says. "Its status as policy needs to be established in practice, and it must be interpreted correctly and consistently by all parties in the planning process if things are to work properly."

Under the framework, each Mineral Planning Authority is expected to prepare an assessment of the demand for and supply of aggregates. But with such assessments in their infancy, inconsistent approaches are already evident across England and Wales, with the thrust erring towards provision of fewer sites for future mineral extraction.

With replenishment rates for aggregates continuing to languish at around 60%, MPA says it is only the cumulative reduction in demand in recent years which is masking the underlying potential shortfall of future supply in some areas.



Aggregate replenishment rates are languishing

Funds for seabed heritage

AN archaeological reporting scheme which helps the marine aggregate industry safeguard historical finds from the seabed will benefit from a renewed funding deal between the British Marine Aggregate Producers Association (BMAPA) and The Crown Estate.

The Marine Aggregate Archaeological Reporting Protocol will receive £60,000 from The Crown Estate over the next three years as part of the organisation's Marine Stewardship

Fund, which has provided support since 2009.

Under the reporting protocol, employees across the industry are able to help protect the UK's submerged heritage by reporting finds to Wessex Archaeology which then consults a range of experts for identification. Where finds such as military remains are considered significant, additional management measures can be introduced by operators to ensure that sensitive sites are protected.

Many interesting finds have been reported since the protocol was launched. Most recently, this has included a single sheave snatch block formerly used to move cargo on and off ships as well as a variety of cannon balls and cutlery issued to the army during the last war. Over the seven years in which the protocol has been operating, over 880 individual finds have been reported. Some relate to archaeologically significant items such as Palaeolithic hand axes found off Great Yarmouth, and remains from aircraft crashes.

"The protocol highlights the responsible approach being taken by the British marine aggregate industry to minimise its impact on the historic marine environment," said Fiona Wynne, stewardship manager at The Crown Estate.

BMAPA director Mark Russell welcomed the Crown Estate's funding. "Staff at wharves or on board dredgers can encounter archaeological finds during their day-to-day work, so the existence of this single protocol is critical to ensuring any items of potential interest are reported consistently," he said.



Striking the balance

MPA chief executive Nigel Jackson believes Government is listening to the industry's case for growth but says that speed is now of the essence. He also reflects on the need for environmental and economic needs to be better balanced to avoid a repeat of the decline in the UK's domestic coal industry.



WITH latest figures showing a sharp decline in construction activity during the first quarter of this year, the pain being felt by mineral products operators is now serious. While demand falls, costs continue to rise, leaving some businesses fighting for survival.

MPA's recent survey shows that sales of construction aggregates fell by 7%, cement by 11%, ready-mixed concrete by 4% and asphalt by 18%.

For MPA chief executive Nigel Jackson, there is some light in the tunnel in that prospects for 2014 look a little better, and that Government has now recognised the need for and benefits from investing in construction. "There are certainly positive signs of intent but there is now an urgent need for the Government to provide the clarity and certainty in its policies to create the confidence that is essential to persuade private companies to invest," he says. "Speed

and timing are everything now – we have to accelerate delivery and growth."

He adds: "We hope the measures to boost housing announced in the Budget and the implementation of infrastructure funding increases from the Autumn Statement will help stimulate increased demand as the year progresses. But we have to convert well-intentioned announcements into increased cash-flow throughout the supply chain.

"Publicly and privately funded infrastructure projects must be delivered more quickly to back up positive policy and funding announcements. If not, the lack of construction activity will continue to be a dead weight holding back economic recovery."

In pressing the economic case, Nigel Jackson is very conscious of the need to balance sometimes conflicting environmental pressures. Few sectors have faced greater challenges in justifying their development ambitions than mineral products, but progress over the past 20 years in terms of public acceptance has been substantial.

The industry has embraced the principles of sustainable development in all its many forms and now has a solid evidence-based case to continue its work. It has engaged proactively with a string of difficult issues – driving up its health and safety and environmental performance and rapidly

increasing the percentage of recycled products in the market.

Along the way, it has shown that high quality restoration of land is good news for biodiversity targets via the unique opportunity to create new wildlife habitats. Carbon reduction has similarly become embedded in the culture of the industry.

"Compared to many other sectors, we have significantly moved perceptions in a positive direction," says Nigel Jackson. "Our many stakeholders now engage with us at a local and national level and constructive dialogue is thankfully the new norm."

And yet he can't help casting a concerned neighbourly eye over what is happening in the UK coal industry which is struggling to survive under the burden of rising costs and alternative supplies. With no obvious progress being made on the ground to strengthen our security of supply, he says it could be argued that the focus on "green supply" needs to be better balanced.

"We need a more pragmatic conversation about the balance between economic and environmental issues. Our environmental performance will continue to improve but the regulatory and cost burden should only advance at the same rate as our main economic competitors until there is a genuinely level playing field and growth is sustained.

"... there is now an urgent need for the Government to provide the clarity and certainty in its policies to create the confidence that is essential to persuade private companies to invest"



Photo: Images of Birmingham

Accelerate now



Image: EDF Energy

New-age nuclear - an impression of the planned Hinkley Point power station

The March budget carried the pledge the mineral products industry badly wanted to hear – a commitment to spend an extra £3bn a year on infrastructure. The big question now is whether words will translate into real action on the ground and, very importantly, how quickly.

GEORGE Osborne puts his enthusiasm for spending on infrastructure like this: “Invest in the arteries and we will get growth flowing to every part of the country”. His words have raised expectations in the construction and mineral products industries which are still experiencing the toughest times for decades.

Taken as a package, MPA welcomed the Budget as providing a desperately needed boost and applauded the fact that the Government clearly understands that investing in infrastructure and construction is key to securing growth. The association also believes the Treasury body Infrastructure UK is doing positive work such as identifying future pipelines of infrastructure work to better enable the construction industry to plan ahead.

But regardless of the promises now made of more local transport schemes and road maintenance work, there remains some scepticism. It arises because, despite the bold intentions set out in the National Infrastructure Plan, real progress on the ground has to date been minimal.

This is borne out by official construction figures showing that output between November and January fell 10% year-on-year – equivalent to a £6.7bn drop. And according to an assessment compiled by Labour from Treasury figures, only seven of the 576 major building projects in the National Infrastructure Plan have been completed. Just 1% of the schemes are said to be operational and just 18% to have started or be under construction.

Says MPA chief executive Nigel Jackson: “There is growing frustration at the continuing gap between the positive public statements about infrastructure investment and the lack of meaningful action on the ground. Office of National Statistics (ONS) data shows that infrastructure construction declined by 12% in 2012. The additional road spending announced in the Autumn Statement was



Crossrail's concrete credentials

Growth intentions

We look here at some of the high profile projects against which the growth intentions of the Government will be tested in the months ahead. Some are well underway and going well. Others are still on the drawing board awaiting a kick start.



Roads

Fixing the UK's often crumbling roads and building new ones where they are plainly needed is seen by the mineral products industry as a sure-fire way in which to inject growth across the nation as a whole. But official data reveals that road construction spending fell by 41% in 2012. Of all the schemes in the National Infrastructure Plan, the A14 corridor scheme through Cambridgeshire is regarded as a strategic route to the east of England and a gateway to boosting international trade via expanding east coast ports. While now added to the major projects programme, it awaits funding with a possible toll section as one option. Maintenance remains a big issue with local

authorities in England reporting a shortfall in their 2012 budgets of £829 million and a cumulative maintenance backlog of £10 billion worth of repairs.

In south Wales, M4 improvements have been in the air for a long time around Newport but await funding agreement with the Welsh Government. In Scotland, the £3 billion dualling of an 80-mile stretch of the A9 between Perth and Inverness will be one of the biggest infrastructure projects in the nation's history. Construction is due to start in 2017.

MPA verdict: Urgent action required now

Accelerate now - continued from previous page

welcome but amounted to less than the record 41% decline in road construction last year."

Spending on Infrastructure construction has averaged £13 billion pa over the last five years but Infrastructure UK has so far identified over £300 billion worth of projects in the pipeline – this illustrating the scale of our infrastructure challenge. A crucial issue will be finding very large sums of private finance to fund many of these projects.

"The announcements about funding projects need to convert into live projects this year and be sustained into 2014/15 and beyond," says Nigel Jackson. There is

now an urgent need for Government to accelerate infrastructure investment with a particular focus on local transport and road maintenance schemes.

"Fixing the supply side of the economy is a necessary precursor to fixing the economy and better infrastructure is central to that."

He added: "There are clearly persistent and long-standing institutional and structural blockages in the way of delivery of major transport and critical energy projects in the UK. These are being addressed but a sense of urgency and a 'can do' approach is needed if bigger and more costly problems are to be avoided over the next few years."



Energy

Stopping the lights going out is an issue of increasing concern. As existing coal-fired and nuclear capacity is phased out will there be enough new generating capacity to meet our future electricity needs?

While planning permission has finally been given for the new-age nuclear plant at Hinkley Point in Somerset, the project still awaits a financial deal between the Government and EDF Energy. It is a pioneering project which will kick-start the UK's new nuclear programme, satisfying some 7% of the nation's electricity needs for 60 years or more. It will also boost the economy by providing 25,000 construction jobs and employment for 900 once completed.

Meanwhile renewable energy has a big part to play in the future and has the potential to deliver tens of thousands of low-carbon jobs. In the last three months of 2012, a record 12.5% of the UK's electricity was generated from renewables. This year is now seen as a crucial one for the industry in terms of Government showing its support through a financial framework.

MPA verdict: Urgent action required now

Homes

The Budget provided a welcome shot in the arm for house building – and for the mineral products that make it possible. Expansion of measures for people who want to buy their own homes should boost the housing market. But it comes after house building fell 9% in 2012 and new housing starts remain 47% below pre recession levels, so there is a lot of ground to make up.

MPA verdict: Looks promising but significant steps needed to increase private and public housing

Sewerage

The 15-mile long Thames Tideway Tunnel will be the longest and deepest tunnel ever constructed in London. It is a major new sewer that will help tackle the problem of overflows from the capital's Victorian sewerage network while protecting the tidal River Thames. The project is badly needed to bring the capital's sewers into the modern age. The Ministers for the Departments of Environment Food and Rural Affairs (DEFRA) and Communities and Local Government (DCLG) are expected to make a decision about planning permission next summer/autumn. Main construction works contracts are programmed to be awarded in early 2015.

MPA verdict: Low profile but vital sector



Photo: <http://photo.library/heathrow.com>

Airports

No decisions are likely to be taken on the thorny issue of whether to expand Heathrow or build a major new hub airport in the South-East until after the next election. Gatwick and Heathrow are both receiving major investment, the former two-thirds of the way through a £1.26bn programme that will complete next March. Heathrow's new Terminal 2A was declared weather tight at the start of the year.

But after years of procrastination there is still uncertainty about where and when new airport capacity will be delivered.

MPA verdict: Limited progress - still a major policy vacuum

Flood defences

The Coalition has announced plans for 93 flood defences which will start to be built in 2013-14, providing better protection for more than 64,000 homes. Schemes started this year include those in Leeds, Exeter and Derby.

MPA verdict: Good news



Image: Crossrail

Railways

The planned Crossrail station at Canary Wharf

While most eyes are on the controversial HS2, good progress is being made on Crossrail which will link east and west London and is currently the biggest construction project in Europe. It is due to start carrying an estimated 200 million passengers a year from 2018.

HS2 will connect major cities in the Midlands and North with the European high-speed network. Despite controversy over the route and its impact on the countryside, the HS2 team has pressed on, announcing the route for the second phase of the project north of London. A "paving Bill" put before Parliament will let Government accelerate spending.

In January, Network Rail unveiled a £37.5bn plan to expand Britain's railways between

2014 and 2019, providing 170,000 extra commuter seats at peak times. Projects include various electrification schemes including the Great Western and Midland mainlines, station improvements at Birmingham New Street and Reading and re-opening of 31 miles of railways in Scotland.

In the Autumn Statement, the Government announced that it would issue a guarantee to support the Greater London Authority's borrowing to extend the Northern Line to Battersea Power Station. The Victoria Line upgrade was finished in January.

MPA verdict: Strong investment programme must come to reality



Image: London Gateway

Ports

Work is progressing well on the London Gateway, 25 miles from the capital (pictured above). It will be the UK's first 21st Century major deep-sea container port and Europe's largest logistics park. Situated on the north bank of the River Thames, the new port provides deep-sea shipping access for the world's leading businesses to the largest consumer markets in the UK. It has been

confirmed that the project will open in the fourth quarter and rival nearby Felixstowe.

Meanwhile, Liverpool 2 is due to be built by 2015, adding an extra 500,000 containers to the city's port. It will cost £300 million, and promises 5,000 new jobs at the port and in the supply chain.

MPA verdict: Very encouraging



Bee image: Bumblebee Conservation Trust

Working with nature

From fresh air and water to food, nature works overtime to provide us with life's essentials, and there is a growing belief that it should be recognised and rewarded accordingly. What are now being termed "ecosystems services" look set to be of increasing significance for mineral products operators in the years ahead as Government and planners factor it into their thinking.

THE humble bumble bee is perhaps nature's most obvious worker, pollinating the agricultural crops that give us an estimated third of our food. But then there are the trees that trap carbon and help to regulate our climate, and the wetlands that clean our water and filter out pollution.

Taking them for granted is easy. But now, DEFRA (along with Governments across the world) is starting to think differently about how all these "ecosystems services" should be valued and communicated. What would it cost us if nature didn't perform such vital services for us? The thinking is that if we value them more greatly then we will also protect them more effectively.

MPA's senior planning advisor David Payne is looking at what the shift in approach means to the industry. "What we are trying to do is to recognise that the concept is gaining

currency and use, notably amongst local authority planners," he says "We need to be able to talk the language and demonstrate that we are helping to deliver these services.

"To do this, we need to better understand which are most relevant to the industry in terms of opportunity and threat, and translate the scientific concept into meaningful language for our members – to help them understand what it means and demonstrate how they are contributing to delivering ecosystem services every day."

The industry's response to ecosystems services is an important one given that it is now widely recognised for the work it is doing through its restoration in creating habitats and in helping to meet national biodiversity outcomes. The evolution of the new approach could move the partnership with nature on to a new level and influence local decision-making.

In some cases, it is even possible to evaluate quarry restoration proposals in balance sheet fashion with a bottom line that indicates the overall financial value of a particular approach to nature. The emerging concept of Payment for Ecosystem Services effectively means nature going into business and “charging” for what it does.

A monetary value is already being placed on ecosystems services in Cornwall where farmers are getting a £360,000 helping hand from South West Water to make improvements to their practices on nutrients, pesticides and animal manure that will in turn help reduce pollutants seeping into the River Fowey. By paying up front, the water authority potentially reduces treatment costs later.

The need for the mineral products industry’s involvement has been stressed by an international organisation known as The Economics of Ecosystems and Biodiversity (TEEB) which aims to draw attention to the economic benefits of biodiversity and get them factored into decision-making. “For mining and quarrying, failure to account for the values of natural capital can pose significant business risks and result in missed business opportunities,” it says.

MPA’s consideration and understanding of ecosystem services is being developed by Dr Helen King of Cranfield University in a study for the MPA and the Nature After Minerals project funded by the Natural Environment Research Council. “It’s not just about putting an economic value on ecosystem services but about understanding, communicating and mapping them,” she says. “Valuation is something you can do afterwards and it may then help policy and planning.”

Helen is keen to see the industry make progress with a pilot database already set up by MPA to start recording habitat creation. She believes that this will then provide the basis for full assessments that will assist in making the case for the working of minerals to be properly recognised as a creator of environment and a net contributor to ecosystems services.

MPA partners Bumblebee Conservation Trust – see page 15



Reedbeds from earlier restoration serve as nurseries for future areas

Doing the sums

AGGREGATE Industries put ecosystems services evaluation to the test at its Ripon sand and gravel quarry in North Yorkshire when permission was given to restore agricultural land to a mix of wetlands for wildlife and a lake for recreation.

An analysis concluded that, over 50 years, the restored wetland would deliver net benefits to the community of some £1.1 million after deducting the costs of restoration and opportunity costs. The benefits consisted mainly of biodiversity (£1.4 million), recreation (£350,000) and increased flood storage capacity (£224,000), and far outweighed the current benefits provided by agriculture.

The example is widely quoted as demonstrating that compensation for adverse environmental impacts is not just

an important means through which to maintain licence to operate. It could deliver improvements in ecosystems services with substantial economic benefits at modest expense.

“The ecosystem services approach suits the industry as we are already looking at elements of the personal benefits which can be achieved on behalf of the local communities through effective management and restoration,” says AI biodiversity manager Delia Shannon.

... over 50 years, the restored wetland would deliver net benefits to the community of some £1.1 million



Lakes created from mineral extraction double as water storage for flood alleviation

ON THE SAFETY FRONT

MEMBERS of the Mineral Products Association are giving wide support this year to two vital initiatives designed to minimise safety risks for the public.

“It is an excellent initiative, taking practical steps to reduce accidents through changing the behaviour of cyclists and drivers”

Stephen Hammond, Transport Minister

The association’s Cycle Safe campaign has been stepped up a gear in its quest to reduce the risk of accidents between cyclists and lorries operated by the industry. Meanwhile, MPA has recently launched its annual Stay Safe campaign to raise public awareness of the hazards of trespassing in quarries and related industry sites.

The Cycle Safe campaign was praised by Transport Minister, Stephen Hammond at an event at Wellington Arch in London where large numbers of passing cyclists were able to experience visibility issues first-hand from inside lorry cabs.

“It is an excellent initiative, taking practical steps to reduce accidents through changing the behaviour of cyclists and drivers,” he said.

MPA’s vulnerable road user safety policy has three key elements:

- All industry drivers must receive vulnerable road user training. The industry training body (MPQC) has developed a specific course which has been CPC approved and is now available.
- New industry LGVs must be fitted with additional safety equipment including blind spot elimination devices, side under-run guards, class VI mirrors, audible left turn warnings for cyclists and pedestrians, and rear warning signs.
- Existing industry LGVs must be fitted with similar equipment levels within an extended five-year period, with operators encouraged to consider accelerating this timing.

Companies are already taking action in line with MPA’s requirements

for safety equipment; and there has been good uptake of the MPQC Vulnerable Road User training module, with over 600 drivers attending to date.

The association’s chief executive, Nigel Jackson said: “We believe that our policy is the most positive initiative taken by any sector with regard to improving vulnerable road user safety and reflects the industry’s commitment to this issue.”

The Stay Safe 2013 campaign comes following the tragic deaths of four teenage boys drowned in disused quarries in the UK over a four-month period last year. MPA’s latest trespass survey shows that over 50% of the sites that responded had experienced problems with trespass in the previous 12 months. Nearly two thirds of sites experiencing trespass identified theft as one of the motivations.

MPA is working with its members to develop new guidance on the management of trespass and to highlight best practice.





Pictured left: Louisa Addiscott celebrates the award for Glyngoch. Pictured right: John Griffiths AM presents awards to Ray Barnes and Louise Roberts from Bradley Park. With them is MPA Wales chairman Stewart Jones (right)

Boosting communities

THE much lamented Aggregate Levy Sustainability Fund may be defunct in England but it's very much alive in Wales – and delivering real benefits to local communities.

Three projects supported by the Aggregate Levy Fund in Wales were honoured at the recent MPA Wales lunch. The awards were presented by Welsh Government minister for environment and sustainability, John Griffiths AM who said: "There are three awards and three projects and each one is distinctly different. What they share though is a common determination to make life better for local people."

"These awards demonstrate how vital small amounts of money and industry support can help transform communities," said MPA chief executive Nigel Jackson. "This is Localism in action."

The Welsh Government has decided to continue with its Aggregate Levy Fund following the UK Government's decision to disband the fund in England. Some £1.5 million is awarded to support community and environmental initiatives in areas affected by aggregate extraction.

There is no better example of the fund achieving what was intended than at Glyngoch, near Pontypridd, a large post-war housing estate which sits just above Craig yr Hesq quarry.

The old community centre at Glyngoch was

in a poor state of disrepair and a victim to vandalism. Without a grant of £403,000 from the fund the brave plans to revamp it would have failed, as a number of other funders dropped out and hopes of securing the necessary £800,000 looked bleak.

Glyngoch has made major strides in recent years in overcoming social issues. Local residents, through Glyngoch Community Regeneration Ltd and supported by the local Communities First team, have done much to restore pride and ambition in the community.

The refurbishment of Bradley Park Bowling Club, near Wrexham was also a winner. Before the launch of the project, the bowling green was allowed to deteriorate following closure some years ago. It was in a sorry state and attracting vandalism and graffiti.

People from the nearby community came up with an ambitious proposal. Not only would they take on responsibility for the site but raise the money needed to create the first all-year, all-weather official crown bowling green in north Wales. The club received a grant of £125,000 from the fund to help complete a project worth £157,000

Links have been established with the new comprehensive school being built next door, to provide bowling opportunities for pupils,

and sections for juniors and players with disabilities are flourishing. Adult teams come from as far away as Birkenhead to play for the day.

The final award went to Burry Port Memorial Park, near Llanelli for the refurbishment of a multi-use games area. The play area had become run down and lacked modern, adventurous play equipment. A grant of £125,000 from the fund has ensured that whole area has been transformed into a bright, modern amenity that children and young people actually want to use. Importantly, the project has given a tremendous boost to local pride and identity.



The presentation to Mary Wenman and Debbie Edwards from Burry Port

One giant step

LEGEND has it that it was a mythical mighty warrior know as Finn McCool who carved what is now known as the Giant's Causeway from the rugged north east coastline of Northern Ireland towards Scotland. Some say it resulted in a battle with his Scottish rival Benandonner who resisted the link.

The reality is that the Province's most popular tourist attraction, with its dramatic 40,000 hexagonal steps disappearing beneath the sea, came about as a result of intense volcanic activity 60 million years ago when molten basalt cooled rapidly and contracted. It is Ireland's only UNESCO World Heritage Site and is visited by some 60,000 people every year.

It is then wholly appropriate that the newly opened Giant's Causeway Visitor Centre should be built using basalt from the same lava flow sourced from a quarry that contributes to the local economy and provides work for local people. It was, however, not a forgone conclusion that the basalt cladding that Dublin architects Heneghan Peng sought for their visionary design could be achieved without importing the stone.

The National Trust called in Stone Conservation Services to undertake a painstaking feasibility study which included visits to several potential quarries, performance tests, production trials and exhaustive discussion with engineers.

While there are numerous basalt quarries spread over Counties Antrim and Derry, their focus is on crushing the grey to black rock for use as an aggregate in road building and construction. Irish basalt would not normally be the choice for the precise cutting and polishing needed to engineer the mullions that now echo Finn McCool's causeway to Scotland.

The outcome is a triumph for Kilrea-based quarry masters Patrick Bradley Ltd whose Craigall Quarry jumped through all the hoops to qualify as stone supplier for the visitor centre. Fundamental to the challenge was designing a blasting process that would separate the rock from the face while leaving larger pieces intact.

A stone saw was installed at the quarry to pre-split the stone and create a flat surface ahead of the specialised work that took place at the stone mason's premises (S Mc Connell & Sons) 85 miles away in Co Down. Such was the drive on sustainability that the unusable cuttings were returned to the quarry for re-use on other basalt stone building projects.

"Basalt is a popular building stone in Northern Ireland but it would not normally have been considered as a likely material for cutting and polishing," says John Shannon of Patrick Bradley Ltd "Hopefully the success of this innovative use will open the minds of designers and specifiers to using construction products that are readily available in the area."



The outcome of the £18.5m investment in the Giant's Causeway is a state-of-the-art visitor centre which folds into the rugged landscape and showcases the legends and the science. The energy-efficient building has a grass roof and a 360-degree view of the dramatic coastline. Finn McCool would approve.

SUSTAINABILITY

Chasing challenges

THE mineral products industry is not allowing difficult economic conditions to stand in the way of its pursuit of sustainability.

The continued commitment comes through in a series of newly published sustainable development reports – one from MPA as a whole and one each from the British Lime Association (BLA) and the British Marine Aggregate Producers Association (BMAPA). Each sets out to improve the quality and reporting of sustainability data while achieving greater transparency.

MPA chief executive Nigel Jackson said: “Against the continuing difficult economic backdrop - which sees the industry now operating at the same market levels as in the mid 1960s - these reports demonstrate the industry’s continuing commitment to sustainable development, illustrate the progress we have made and set out the challenges we still face.”

MPA’s fourth SD report highlights that the industry, with annual turnover of £9 billion and supplying industries with a combined turnover of £400 billion, makes an essential contribution to national and local economies, and to the UK economy and its sustainability.

But, with the increasing costs and burdens of environmental and planning regulation

currently running at some £400 million a year, the association believes there is a need to ensure that the regulation to encourage sustainable development is reasonable, proportionate, consistent and effectively implemented.

MPA HIGHLIGHTS

- Further improvements in health and safety
- New initiative to improve safety of vulnerable road users
- Continuing reductions in carbon emissions
- 20% of aggregates and 19% of cement delivered off-road
- 40% of fuel for cement from waste-derived sources
- 29% of GB aggregates from recycled and secondary sources

BLA HIGHLIGHTS (2005-2011 COMPARISON)

- CO₂ emissions per tonne of high calcium lime reduced 11%



- SO₂ emissions per tonne of high calcium lime decreased 78%
- SO₂ emissions per tonne of dolomite decreased 20%
- Waste to landfill reduced 94% per tonne of lime
- Waste-derived material made up 36% of combustion fuel for dolomite

BMAPA HIGHLIGHTS

- Area of seabed licensed for dredging reduced 1.3%
- Hours dredged increased 13.2%
- Regional environmental assessments completed in four regions
- CO₂ emissions increased 13.8% but emissions per tonne landed decreased 3.8%
- 14 electronic member alerts in health and safety programme

SERVICE



Loyal rock

THE mineral products business has a reputation for long service – but Marc Eltham’s achievement takes some beating after 45 loyal years with the Wiltshire-based Hills Group.

Marc’s career started in 1967 as an office junior on the company switchboard with T F Coke of Cheltenham before progressing to general office work in a company that was taken over by Hills in the 1970s. His adaptability showed itself as a relief

weighbridge operator at a Cotswold Water Park quarry before joining the sales team where he continues today.

“It’s a genuine family business that looks after its staff,” says Marc. “Getting on well with your colleagues is important - through the years I’ve worked with some great people.” Group director for Hills Quarry Products, Alan Mackenzie, describes Marc as “a rock who has Hills written right through him.”

PROJECTS

It's in the bag

CONSTRUCTION of a new RNLI lifeboat station on the Llyn Peninsula in North Wales posed some unusual challenges for the Tudor Griffiths Group.

The 125-year-old station that is being replaced nestles below a cliff which supports the 15th tee of a local golf course. The job for Tudor Griffiths' bagged aggregates business has been supplying a uniquely blended mix for the foundations and bases of the new station, using sand and gravel from its local quarry in Cefn Graianog.

A specially designed computer-controlled method has been adopted to measure the exact quantities of sand and gravel for a high strength, sea water-resistant, concrete mix. The second issue was how to get the aggregates to the remote spot. It was



solved by shipping the mix in specially designed bulk bags from the port of Trefor

using a jack-up barge for the short sea journey to the beach at Porthdinlleian.

ARCHAEOLOGY

New insight

EXCAVATIONS at Hanson's Must Farm brick clay quarry at Whittlesey, near Peterborough, have shed significant new light on the daily lives of Bronze Age East Anglians.

Remains uncovered at the quarry date back 3,000 years and have revealed an extensive range of preserved objects not normally found on prehistoric sites in Britain including a small flotilla of six log boats. Buried up to six metres below today's ground level, and preserved by the waterlogged conditions of the Fens, the finds include whole pots still holding food and hoards of Bronze Age weapons.

Their survival was partly due to an inferno which engulfed the buildings around 800BC, preserving them and their contents in exceptional condition because rapid charring

would have been followed by quenching as they dropped into the fen waters.

The extensive excavations at the clay pit were initiated ahead of further extraction for brick-making. Hanson agreed to leave the timber platform out of the mineral extraction area and a protective mound (or bund) was created to shield the remains from the quarry. The bund also acts as a barrier to water flow which ensures that these remains stay wet – which is vital to preserve them.



CARBON

Burning issue

INNOVATION and ingenuity lie behind the creation of one of the most efficient power plants in Europe at Pembroke in south Wales.

Operator RWE npower worked closely with CelticAsh and Lafarge Tarmac's cement plant at East Aberthaw to overcome a number of tricky technical challenges whilst saving around a quarter of the CO₂ emissions of making cement. The team hit on the idea that ash left after power generation from a sister site could be used to replace over 25% of the raw materials used for making cement for the new station.

Around 7,000 tonnes of ash was used – equivalent to the weight of almost 600 double decker buses. While using ash in cement is tried-and-tested technology, the fact that the ingredients were local produced a special low-carbon Welsh cement.

SPORTS SAND

Champion bunkers

Tiger Woods will be hoping he doesn't see too much of Hugh King and Co's celebrated bunker sand when he takes part in this summer's UK Open Golf Championship at Muirfield.

But the Ayrshire company's specialist free-draining product will be in there in quantity after a major breakthrough which has seen the East Lothian course look outside its own grounds for sand for the first time in its 121-year history. The historic move has been brought about by dwindling supplies from within the course's own grounds.

The course began the 400-tonne sand-

exchange programme in March last year, swapping materials in all 148 of its on-course bunkers and three practice bunkers. Hugh King's sought-after product is also heavier than most and is noted for being more wind-resistant in exposed areas.

"We have always used native sand," said course manager Colin Irvine. "But the supply was running out and we were beginning to get inconsistencies. We tried quite a few types of sand and worked with Hugh King to come up with a type that we liked and the members would like."



WILDLIFE

Saving faces

SAND martins make an amazing journey each winter from the Sahara to the UK – and many of them then choose to breed in the faces of sand quarries.



This year, every CEMEX UK quarry is giving them a helping hand by creating the sheer banks favoured by the intrepid little birds. In partnership with the RSPB, the company

is also launching a sand martin awareness campaign with an advice sheet to help managers of the 60 sites accommodate the protected species.

As well as providing sheer sand banks, the quarries will ensure that the birds are not located close to the main operations and are also inaccessible to predators.

PARTNERSHIP

Building biodiversity



Photo: Fred Holmes

MPA has boosted its input to biodiversity by giving its support to two nature-based initiatives with strong links to the industry.

Members will work with Pond Conservation to protect and improve the nation's ponds, in particular in the second phase of the the *Million Ponds Project* – a 50-year initiative to create a network of clean water sites for freshwater wildlife. Quarry operators are uniquely placed to create new clean water ponds.

Meanwhile, the association has also established a new partnership with the Bumblebee Conservation Trust which recognises the industry's potential to help bees by facilitating access to quarry sites for monitoring, advising and educating quarry staff on measures such as creation of suitable habitat, and surveying their sites for bees.

Lucy Cooper, acting chief executive of the BBCT said: "It means we will be able to work with land owners we have not previously been able to reach, ensuring that the UK's rarest bumblebees have the habitat they need in order to survive."



COUNCILS in England and Wales spent more than £32 million last year on compensation to people who came to grief in the nation's potholes. On top of that came £13 million on staff time to process claims – and another £113 million to fill the ruts!

In a deep

The Asphalt Industry Alliance's annual national survey of local road network condition and funding reveals a crumbling road crisis of increasing concern and has renewed calls for Government support for increased and longer term funding. The Annual Local Authority Road Maintenance (ALARM) survey was completed by 75% of councils and reports that the number of potholes filled over the last year in England and Wales rose by 29% to 2.2 million.

The AIA – an alliance between MPA and the Refined Bitumen Association – is calling for action from Government to introduce longer-term funding mechanisms, allowing councils to move from costly one-year cycles of highly reactive work to longer term planned, preventative maintenance programmes.

Councils paid out 50 per cent more last year than the previous year in compensation claims from road users for damage or injury due to poor road condition.

While the cost of filling potholes is not increasing significantly overall, they indicate poor road condition that is costing the country heavily in many other ways. This year, local authorities reported a shortfall in their budgets for 2012 of £829 million and estimated that £10.5 billion would be needed to bring their roads back into reasonable condition.

"Constantly having to patch up crumbling roads rather than using highway engineers' skills properly to ensure good road condition in a planned and cost-effective way, is nonsensical and costly to the country," says AIA chairman, Alan Mackenzie.

He added: "The Department for Transport's *Potholes Review* was a welcome initiative and concluded that prevention is better than cure. When you add up all the costs incurred by not following this advice, it's hard to understand why central Government cannot find a way to invest in this much needed work and save on higher costs in the future.

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