

Summer 14 | Issue 9

The magazine of the Mineral Products Association

# mineral

products today



**Crossrail**  
concrete 'makes the link'



Dawlish  
saved from the sea

Digging deep  
reward for marine team

In the flow  
river delivery

# WELCOME

**THIS issue is built around themes that say much about our industry and its role in the modern world. Resilience and ingenuity are qualities that we have**

**needed in good measure in order to find a way through the huge challenges of recent years.**

While we still remain well behind the market levels that applied before the recession, we are at last starting to see some economic progress. Our



members have needed to remain resolute in the face of a daunting reduction in demand for our products, but they have also needed to innovate and to adapt to our more sustainable world.

The Crossrail project sees us contributing on a large scale to Europe's biggest construction project of the moment, not just inputting quality products but handling the flow of excavated material that is in itself recycled into a large scale nature reserve. While opening up a new rail option for the nation, Crossrail also involves using river transport in a big way to make it possible.

This issue also sees us working with our customers to fight back against the worst the weather can throw at us. While the image of

Dawlish will live long in everyone's memories of the storms, our materials have been widely used in the recovery process elsewhere.

Marine aggregates have an important role to play in the UK's coastal defences and it is good to see that sector rewarded for its forward-thinking commitment to regionalised environmental assessments with much needed new licences.

Meanwhile our colleagues in the mortar business can also be encouraged by their own housing-led revival in markets after a 45% fall-off in demand.

Long may it all continue.

*Bill Brett, Chairman, MPA*

## Failing to grasp golden thread

**REGULATORS are still so preoccupied by old-style environmental imperatives that they have failed to embrace the concept of sustainable development. The conclusion came at MPA's 2014 Environment and Mineral Planning Conference at the University of Warwick.**

The association's director of mineral planning, Ken Hobden, told delegates: "Two years on from publication of the National Planning Policy Framework - which announced the presumption in favour of sustainable development as a "golden thread" running through plan-making and decision-taking - there is little evidence that regulators have grasped that thread."

The conference highlighted a continuing over-emphasis on often competing environmental interests that is making sustainable minerals more difficult to deliver. The balance, it was claimed, is swinging away from the planning

permission as the primary component of the licence to operate.

Lucy Binnie of Land and Mineral Management concluded her presentation by saying: "It is increasingly difficult to see how progressing planning and environmental permitting in parallel is the best option for most proposals. The environmental permit necessary for restoration works is seen by many as the most risky and arduous to obtain and therefore should be undertaken first. Intuitively, this seems totally out of sync with the balance of interests approach necessary to deliver sustainable development."

Another widely held view was that decisions of the Planning Inspectorate can no longer be relied upon to pull mineral planning authority decisions back into line with Government objectives, when local political imperatives increasingly allow little weight to be attached to sustainability.



*Planning – sustainability needs to be the focus*

Meanwhile, the issue of inert infill for quarry restoration and the insistence of the Environment Agency (EA) that this should be classed as a disposal operation, continues to impact negatively on the industry.

Hugh Lucas, chairman of MPA's environment and mineral planning committee, commented: "The EA's position on inert fill for quarry restoration is getting in the way of maximising the sustainability benefits of mineral working. There is a perception that the attitude of the EA is more focussed on process than outcomes."

### Mineral Products Association

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

Tel: 020 7963 8000 Fax: 020 7963 8001

Email: [info@mineralproducts.org](mailto:info@mineralproducts.org)

Web: [www.mineralproducts.org](http://www.mineralproducts.org)

Chairman: Bill Brett

Chief executive: Nigel Jackson

### Mineral Products Today

Managing editor: Elizabeth Clements

Email: [elizabeth.clements@mineralproducts.org](mailto: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](mailto:barrie@muddybootspr.co.uk)

The views expressed in Mineral Products Today are not necessarily those of the Mineral Products Association.

Copyright: Mineral Products Association 2014

Cover photo: Pre-cast concrete segments put the strength into the Crossrail tunnels (pages 8 and 9). Photo Crossrail Ltd.

Printed on recycled paper



# New action on trespass



**MPA's drive to extend its successful public safety campaign to include disused sites has moved up a gear with the publication of comprehensive new guidelines for members.**

Publication of the guidelines – covering both active and disused sites – follows a substantial increase in incidents arising from trespass during the hot summer of 2013 when there were six deaths by drowning over a two-month period. In response, MPA hosted a summit to explore how the increasingly worrying issue of trespass on disused sites can be tackled.

As a prerequisite, operators are being urged to review their public safety risk assessments on all sites for which they are responsible. Particular attention is focused on fencing, signage, safety devices and security arrangements.

The association is also aiming to achieve concerted action in partnership with other organisations for whom public safety is

an issue, especially those involving water safety. In further liaising with the range of stakeholders who attended its summit, it aims to develop a range of case studies and a contact directory of sporting associations, environmental and other groups interested in exploring potential alternative uses for disused sites.

The new moves come as MPA launches its 2014 Stay Safe campaign with an intensive public communication programme in partnership with members to warn of the dangers of trespass.

Chief executive Nigel Jackson says MPA will explore every possible avenue to address the issue. "The guidelines are the first of a series of public safety initiatives planned for this year," he says. "We will continue to collaborate with relevant groups on key issues such as signage, public education associated with open water swimming and exploring alternative approaches to the management of disused sites, particularly those in the control of third parties."

# Aid pledge blocked

**A STRING of energy intensive mineral industries have been dealt a body blow by an EU decision which has blocked help promised by the UK Government on crippling costs.**

The decision by the EU College of Commissioners to adopt new environmental and energy state aid guidelines means that long-awaited relief for all-important cement, ceramics, kaolin and ball clay, and lime industries in the form of cost offsetting will not now be forthcoming.

The decision in Brussels undermines a statement by George Osborne in the March Budget and directly contradicts what Business Secretary, Vince Cable, also said in the House of Commons, when he made clear that he wanted the UK's energy intensive industries to "compete on a level playing field".

He added: "That was the aim of the changes announced in the Budget and we are now actively pursuing state aid clearance to make sure that these compensation mechanisms go through."

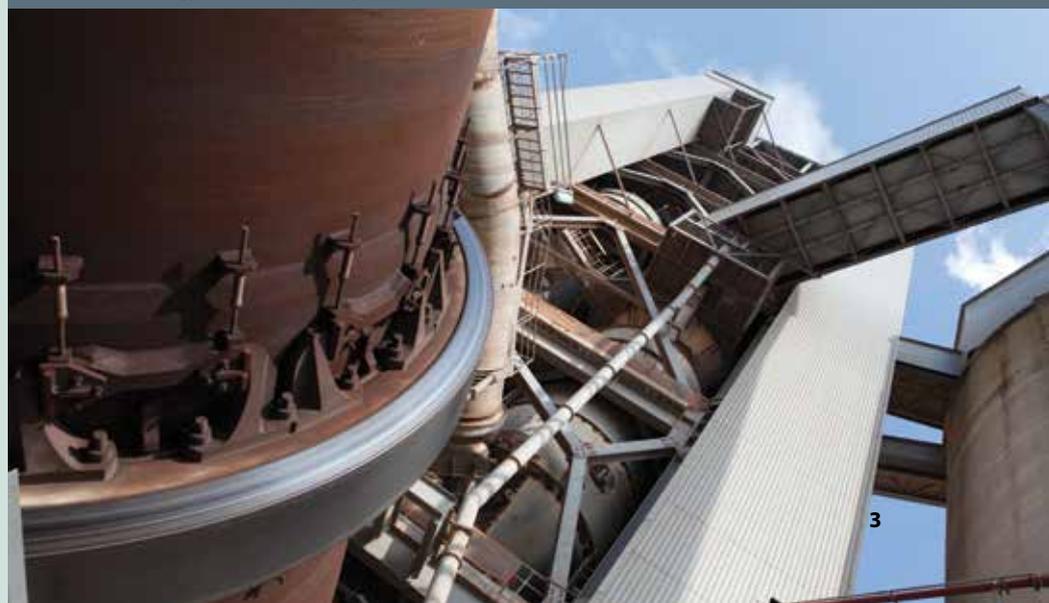
While some energy intensive industries will receive compensation against the UK's unique carbon price support tax, sectors such as those represented by the British Confederation (BCC) and the MPA, will fall foul of a technicality in the new guidelines, which excludes electro-intensive manufacturing.

In a joint statement, Nigel Jackson of MPA and Laura Cohen of BCC said: "The UK Government has recognised the importance of our vital manufacturing industries to the economy and

jobs. They want to help our members stay in business in this country where we face some of the highest electricity costs in Europe and are vulnerable to rising imports.

"Yet in the face of their best intentions, UK ministers have been thwarted by these new rules from Brussels. Our members will pay the price of this unequal treatment, further undermining their competitiveness globally and specifically in Europe."

*Cement – an energy-intensive industry*



# Maintaining momentum

**MPA chief executive Nigel Jackson expresses cautious optimism over the recent growth in demand for the industry's products.**



**AFTER five of the toughest trading years for two generations, the uplift in demand experienced over the past nine months or so provides welcome relief for our sector.**

MPA results for the first quarter of 2014 show significant increases over the same period of last year with aggregates and asphalt sales volumes about 17% higher and ready-mixed concrete sales up 5%. Though the figures add weight to the signs of recovery, we still remain over 25% below pre-recession levels of activity and are very aware of the caution expressed by the Chancellor that the recovery has some way to go.

While the debate continues about what actually triggered the change in confidence that has flipped us from recession to recovery, new questions arise in the minds of our members. How strong and sustainable is the recovery? When will new capacity be needed? And if it is needed, when will confidence reach a level at which it is prudent to invest?

Fundamental questions like these are now very much in play against a backdrop of

major political uncertainties from the recent local and European elections, the impending Scottish referendum and the General Election in a year's time. Add to that consequential changes in the European Commission, continuing worries about the financial strength of the Eurozone (and indeed the USA), and it is not surprising that positive relief and optimism for the short-term is laced with caution for the medium term.

What we do know is that housing is on the increase. With such a massive cumulative undersupply, it should continue to contribute to demand provided the disproportionate impacts of any 'bubble effects' in the 'fifth country of London and the south east' do not disturb confidence.

On energy, there is an equally huge job to be done in replacing our dying coal and wilting nuclear industries, with no imminent obvious replacement capacity bar Hinckley Point. On the rail front, HS2, Crossrail2 and the need to upgrade and maintain existing pathways will also boost demand, albeit over the medium term.

And on roads, there is now a backlog of £12bn just to get the existing local authority road network back into reasonable condition. Add to all this, other major projects identified in the National Infrastructure Plan, and the outlook is theoretically good for a sustained recovery in the construction industry to which our members are by far the biggest suppliers.

MPA is now five-years-old and it is clear that it has an important role to play in helping Government of whatever colour deliver its agenda for both the built and natural environments. The policies we have put in place since our launch in 2009 make us a valuable partner in vital areas like improving health and safety, reducing carbon emissions, improving biodiversity and innovating new sustainable products.

As the pre-election debate gains momentum over the coming months, we will share our thoughts as to how uncertainty is best reduced to engender confidence to invest. In that way, the pent up demand for new development and repair and maintenance can be satisfied through a steady and adequate supply of essential mineral products such as cement, aggregates, concrete, asphalt, dimension stone, mortar, lime and industrial sands.

While the scale of the task ahead to rebuild, renew and expand our infrastructure is a huge one, there is a shared desire to achieve common aims. Our politicians have a responsibility to ensure that the hard-earned and still fragile recovery is carefully and purposefully nurtured over the next year if the current momentum is to be maintained.

Nothing should be proposed prior to the election which causes added uncertainty or dithering, least of all on the back of misinformed populist soundbites.





# Digging deep

Years of hard work are starting to pay dividends for the marine aggregate industry, with growing confidence that it at last has a long-term licence to operate.

**MOST of us never have reason to think about the source of the materials from which our homes and essential built environment are constructed. While the answer often lies in a quarry not too far away, it could be that the aggregates you live with actually originate from the sea bed.**

The marine resource forms a key part of the UK's overall aggregate supply mix. Bringing it to you from sometimes 30 miles out to sea depends on a 24-hour-a-day fleet of dredgers and their crews but also on an exhaustive planning and licensing process to safeguard an often unseen environment.

The process of permitting marine aggregates is one that has undergone fundamental change over recent years and has involved a significant commitment from industry, regulators and advisors alike. Following the introduction of the Marine & Coastal Access

Act in 2009, today's regime for managing and regulating the activities of sea bed industries is taking place against a backdrop of Government getting to grips with marine conservation. This has seen 27 nationally protected sites being designated at the end of 2013 within a wider network of marine protected areas, with a programme for further sites to be designated over the next two years.

It is a move that has been welcomed by the British Marine Aggregate Producers Association (part of MPA), and a process that has been greatly assisted by the growing weight of knowledge its members have committed to provide over recent years. With dredging areas needing to occupy only a tiny percentage of the available sea bed, operators have appreciated the greater certainty that is now beginning to emerge over the location of particularly important or sensitive areas offshore.



Along with the greater clarity has come the first of a raft of much-needed new licences, many of which renew the permissions for existing long-standing areas. There is also a feeling that years of hard work are starting to pay dividends in terms of securing a sustainable future for a sector that has had to be patient in its quest for a long-term “licence to operate”.

MPA’s director of marine aggregates, Mark Russell, traces today’s success back to the late 1990s when the industry recognised that many of its traditional resources from existing licences in the southern North Sea were becoming exhausted. As a result, operators identified the eastern English Channel as a “greenfield” site offering large quantities of high quality sand and gravel within ancient fossilised river channels.

“Being located in much deeper water, the location was very different, and it raised all sorts of environmental as well as technical issues,” says Mark. “Rather than each operator going off and resolving these challenges on their own, there was a collective realisation that they were stronger working together to deal with issues that affected everyone. It was strategically important for the industry to get this right on the basis that it would provide a foundation for the future.”

Key to the approach adopted at that time was a voluntary commitment by the industry to assess potential impacts on the environment and on other marine users at a regional scale, alongside the site-specific environmental impact assessments that were already required. The strategy was a sound one and delivered licences that by 2013 supplied 3.4 of the 16 million tonnes dredged in UK waters,

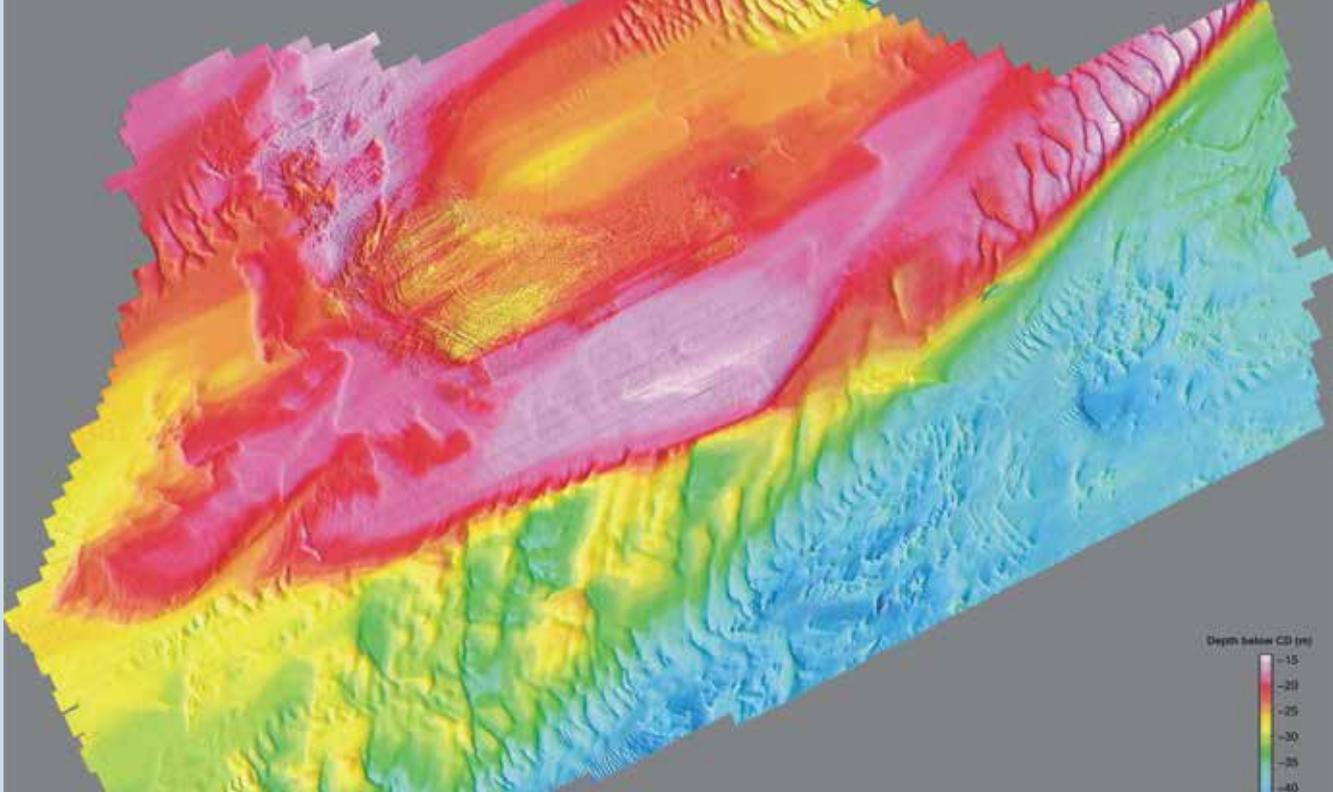
half of which was delivered to wharves in London and the South East of England.

With the principle of regional environmental assessments accepted by both industry and regulators, they were the natural solution to adopt when it came to supporting a major renewal process for a large number of historic licence areas that expired at the end of 2013. Around 2006, the industry duly committed to producing four further assessments across the Humber, Anglian, Outer Thames and South Coast regions.

With the Marine and Coastal Access Act also resulting in a new UK Marine Policy Statement, which provides a strong policy position supporting the need for marine aggregates, and an emerging process of marine planning to enable delivery, the industry is now looking at the potential for a 30-year horizon in terms of certainty.

Says Mark Russell: “It takes us to a position where operators will hopefully have the confidence to invest in replacing the industry’s ageing dredging fleet. Our members currently operate a fleet of 22 dredgers, and with an individual replacement typically costing £35 to £40 million, long-term certainty in planning and licensing is a key factor to decision-making.”

“Rather than each operator going off and resolving these challenges on their own, there was a collective realisation that they were stronger working together to deal with issues that affected everyone”



## A MAJOR INFLUENCE

*High resolution bathymetric data has helped the cause*

CD is 2.85m below OD (Newlyn)

The substantial advances made by the marine sector over recent years are due in no small part to the fact that £25 million worth of vital research was paid for through the Marine Aggregates Levy Sustainability Fund. Controversially abandoned by the

Government in 2011 (along with its land-based equivalent in England, although still operating in Wales), the fund was responsible for projects like the mapping of geology, ecology and archaeology across six broad regions around the coastline.

The results from this work were not only of great value in supporting the way marine aggregate interests are planned, assessed and managed, but supported the identification of marine conservation zones and also other marine developments such as offshore wind.



Photo: Westminster Dredging Co.

## SAVING OUR SHORES

... widen the potential benefits of coastal defence schemes so they create opportunities to deliver social, economic and environmental benefits.

The past winter has demonstrated to frightening effect the vulnerability of parts of the UK shoreline, and the communities, infrastructure and environment that it protects. With concerns growing that the threats posed by climate change will grow, the marine aggregate industry, with its unique capability to deliver large volumes of sand and gravel to replenish vulnerable coastlines, is

well placed to help meet the challenge.

Looking ahead, BMAPA is working with The Crown Estate, RHDHV, Arup and others on "Sandscaping" – an initiative that considers the coast differently. The idea is to widen the potential benefits of coastal defence schemes so they create opportunities to deliver social, economic and environmental benefits at a scale never before seen in the UK.

It builds on an innovative Dutch technique known as "sand engine". The process involves placing millions of tonnes of sand and gravel to create a spit off the coast which has recreational and habitat benefits.

The spit is then naturally eroded over time by waves and currents, so increasing the volume of sediment in dunes and beaches.



# Crossrail concrete 'makes the link'

It's taking place up to 40 metres beneath ground and many Londoners are blissfully unaware that it is happening, but the £15 billion *Crossrail* project is set to revolutionise travel in London and deliver £42 billion worth of benefits to the UK economy. Europe's biggest construction project of the moment needs products from a wide network of MPA member sites.

THERE are eight of them, each weighing in at 1,000 tonnes and as long as 14 London buses end-to-end. The *Crossrail* tunnel boring machines snaking their way between tube lines, sewers, utilities and underground rivers are cutting out a new future for our congested capital.

Each named after a famous woman, the machines progress at a snail's pace of just 100 metres a week – but they have sufficient force behind them to lift 2,900 taxis. At the front end, they have a face cutter which rotates at no more than three times-a-minute and feeds excavated material via a screw feed and conveyors back to the surface. In the wake of the cutting process comes the placement of a quarter of a million concrete ring segments using massive hydraulic rams, so creating the tunnel.

Once complete in 2018, this new artery with its 26 miles of tunnels will pass through 40 stations and run all the way from Reading to Heathrow and then underground to Shenfield and Abbey Wood to the east of London. Each train will carry twice as many people as at present, bringing an additional 1.5 million people within a 45-minute commute of London's key business districts.

Making the project work is a massive exercise that involves 10,000 people working directly at over 40 sites. But behind that lie tens of thousands more people – and none are playing a more essential role than those producing and delivering the concrete and other mineral products that are *Crossrail's* fabric.

250,000 pre-cast concrete tunnel segments

250,000 pre-cast concrete tunnel segments will be used to line the 42 kilometres of tunnels.



Each train will carry twice as many people as at present

Tunnel segments await river delivery from Chatham

Photos: Crossrail Ltd

will be used to line the 42 kilometres of tunnels. 110,000 of these can be traced back to a bespoke Brett Concrete plant on the site of the manufacturing facility in Chatham dockyard. The concrete is made to a very high strength specification that requires Brett to draw sand by barge from its quarry near Ipswich, mixing that with limestone shipped by Aggregate Industries from its Torr quarry in Somerset.

“We are delighted to be involved in such a prestigious contract,” says Chris Chapman, managing director of Brett Concrete. “It is a testament to the capabilities of an independent supplier that we secured the order.”

While the Chatham segments make their way by barge to the entrance to *Crossrail's* eastern tunnels in Canning Town, a further 75,000 for the western tunnels are being made at Old Oak Common using concrete supplied by Hanson from another on-site batching plant. In that case, coarse and fine aggregates are brought by rail from Whatley Quarry in the Mendips while marine sand comes via a wharf at Dagenham and the cement comes by rail from Ketton in Rutland.

But there is a lot more concrete going into *Crossrail* than that for the tunnel segments. Hanson is also supplying mix components

## Crossrail feeds from a mineral products supply network in London which includes:

- 16 rail depots supplying 4.3 mtpa
- 14 wharves supplying 4.6 mtpa
- 4 quarries supplying 1 mtpa
- recycled materials supplying 8 mtpa

for the sprayed concrete that is typically used to create the launch shafts for the boring machines, and for new stations like those at Whitechapel and Liverpool Street.

With limited site storage, it is a logistical challenge which Hanson has met through careful liaison with the BBMV joint venture, a fleet of over 150 vehicles approved to *Crossrail* requirements and just-in-time delivery to reduce congestion.

CEMEX is another company that has supplied sprayed concrete for several *Crossrail* contracts. Raw materials are sourced via its dry silo operation with the cement being supplied from its works at Rugby and the aggregates from its limestone quarry near Buxton. CPI EuroMix has used its dry concrete silo system for sprayed concrete, offering a combination of factory output dry material with discrete on-site production.

Meanwhile, Lafarge Tarmac is playing a key role in the recycling of excavated material produced during the massive tunnelling process. The company has reinstated a disused rail freight link into the site of its former Northfleet cement works in Kent. Spoil from the western tunnels is transferred by ship to regeneration sites, including a new RSPB nature reserve at Wallasea Island, Essex. Up to five freight trains a day run between Westbourne Park and Northfleet.

Other MPA members S Walsh and Day Aggregates are also key to the removal of material. Day takes material from the new Bond Street station for shipping via its yard at Greenwich, while S Walsh is operating on a larger scale from its site north of the river. Day is also supplying recycled aggregate drawn from its extensive operations into various *Crossrail* contracts as well as to stations between Paddington and Maidenhead as they gear up for the mighty project.

**MPA members are at the forefront in their response to *Crossrail* standards designed to protect vulnerable road users. Operators have invested more than £1,000 per truck in cyclist monitoring and warning devices and drivers have undergone intense training.**



SOME see it as the stuff that keeps bricks apart. Others more accurately regard it as the glue that bonds them together. Mortar also has fans amongst architects who recognise that it can make a big contribution to the visual appeal of a building as a whole when supplied in colours other than grey.

# Making mortar standard stick

Quality Mortar  
Right when you need it



**But everyone agrees that mortar's bonding role is an essential one that demands high standards of quality during production. So much so that it, along with screed, is now subject to CE marking regulations which came into force last July. The hope within the industry is that the new requirements will lead to a reduction in the practice of "knocking up" mortar on site.**

Members of the Mortar Industry Association (part of MPA) all now work to guaranteed minimum strengths or to defined mix proportions. Regular samples are taken for testing and analysis to ensure compliance with the standard. That record then becomes part of a formal factory production control system ensuring complete traceability for checking and monitoring.

MIA marketing group chairman David Stewart sees the system as a big step forward. "It gives proper protection to customers whether they are buying wet ready-to-use, silo-delivered or pre-batched lime sand," he says. "The issue then is how specifiers, clients and main contractors can demonstrate compliance to the new standard when they employ site mixing with separate bags of cement, a pile of sand and a shovel."

"The issue for many builders, however, is that they perceive that site mixing offers them both flexibility and cost savings. This, therefore, becomes a marketing challenge for the MIA."

To meet the European standard for mortar (BS EN 998) in construction, the product has to meet seven basic requirements: mechanical resistance and stability; safety in the case of fire; hygiene, health and environment; safety and accessibility in use; protection against noise; energy economy and heat retention; and sustainable use of natural resources.

The need for quality is always important but

## HOUSING-LED RECOVERY

Housing projects are now leading the recovery for the factory-mixed mortar market. Sales bottomed out at 1.5 million tonnes in 2012 compared with 2.7 mt in the heady days of 2007. The figure for the whole of 2013 was 1.7 mt and significant growth is anticipated this year.

"Things are unquestionably picking up," says MIA marketing group chairman David Stewart. "If this same pace continues we will be back to 2007 levels in another two to three years. We are generally a bit uncomfortable that as much as 80% of all factory-mixed production is currently going into housing and look forward to growth in other sectors."

never more so than for buildings on the scale and complexity of the dramatic new 37-storey skyscraper at 20 Fenchurch Street in the City of London. On completion later this year the building, widely known as the Walkie-Talkie because of its top-heavy appearance, will have over 28,000m<sup>3</sup> of concrete, 13,000 tonnes of steel and around 33,000m<sup>2</sup> of glass.

As with many iconic buildings of its type, the Walkie-Talkie is going up on a very confined site. It also has no hoists or mechanical means of access to its deep basement levels. That left brickwork contractor Lesterose Builders facing several logistical challenges and resulted in them turning to MIA member CPI EuroMix for 300 tonnes of mortar. The company utilised a 'hurricane' remote mixing station and special pumpable natural mortar.

Lee Ledger, contract manager at Lesterose says: "The silo and remote mixing station were the natural choice as it helped to cut down on waste, deliver consistent levels of mortar and provide the highest quality of material where it was needed."

CPI EuroMix's standard silo system was then used to produce mortar for the ground and upper floors. Capable of containing up to 30 tonnes of dry material, the system eliminates waste whilst ensuring a consistently high

quality supply of mortar.

Meanwhile on Merseyside, one of MIA's smaller members, John Carr (Liverpool) is hitting the same high quality standards. While 90% of its business is on Merseyside, its reputation takes bagged material all the way to Kent where its fine Cheshire sand is key to successful re-pointing by a company specialising in mechanical injection of the mortar.

The history of the company is lost in the mists of time but it is thought to have started in the 1890s when John Carr switched from being a chair maker. Today, there remain five members of the family in the business run by grandsons Brian and Nicholas Carr and Brian's son Andrew as directors.

"We pride ourselves on not having a rep on the road," says Brian. "When you ring us you will always get someone called Carr answering the phone and you will get personal service."

"There is a certain amount of loyalty amongst our customers but you have to give the customer what he wants. If that means colouring the mortar yellow to send it to match the natural colours of the Thames Valley then that is what we do."



# Tide turns FOR THE THAMES

**AFTER long years of decline, figures show that the Thames has once again become a busy motorway for freight – not least because of the business that is being generated by the mineral products industry.**

**While feeding aggregates to hungry building sites, the river is also the route by which construction components such as concrete segments for Crossrail tunnels are delivered to site and spoil is removed. Thames Water's massive Tideway Tunnel will similarly enjoy the benefits of an industry that has embraced the sustainability of river transport.**

The volume of freight moved on the Thames has trebled in the past four years and reached a new decade high in 2013. In that one year, the river carried the equivalent of over 265,000 lorry loads of materials with a resulting huge reduction in congestion and carbon.

Business on a large scale comes via the marine aggregate industry which delivers sand and gravel dredged in the North Sea and English

Channel to a series of deep water wharves. Latest figures show that some 5.6 million tonnes a year comes into London and the Thames Corridor.

Meanwhile, river operators investing to meet the growing demand include several MPA members. In the last 18 months Bennetts Barges (part of Aggregates Industries), GPS Marine, and S Walsh have, with Thames Shipping, collectively invested more than £15 million in new ships, tugs and barges.

GPS Marine's group general manager Peter Lawson has seen his fleet grow quickly to include seven coastal and river tugs and 22 barges while employees have now reached 65. Customers include Hanson for aggregates and Crossrail for both muckaway and tunnel segments. The fact that one barge can carry



41 complete tunnel rings removes 82 truck movements between the factory at Chatham Docks and Canning Town where they go underground for installation.

"Infrastructure for operating on the Thames has been driven down over the years and will take some time and investment to get back to a reasonable standard," says Peter. "Lack of Government support and vision has not helped develop a thriving industry on a main "motorway" running through the centre of the capital city.

"But with increasing government awareness, investment and support to promote river transport there is now the potential for continual growth on the river, especially with the number of construction projects earmarked in the next 10 years or so."

## SAFETY

## Leading on cycle safety

**THE MPA is amongst the leaders in the introduction of a new standard designed to bring consistency in the drive to minimise the risk to cyclists and other vulnerable road users across the UK.**

The launch of the Construction Logistics and Cyclist Safety Standard (CLOCS) is seen by London Mayor Boris Johnson as the dawn of a "cycling revolution" and follows a spate of six cyclist fatalities involving trucks or buses during last November. A task force has been set up to tackle the issue of seriously non-compliant operators in London where the Mayor and councils

are pressing ahead with a scheme which will discourage HGVs without minimum safety standards - notably sideguards - from entering the city. That will probably entail a charging regime.

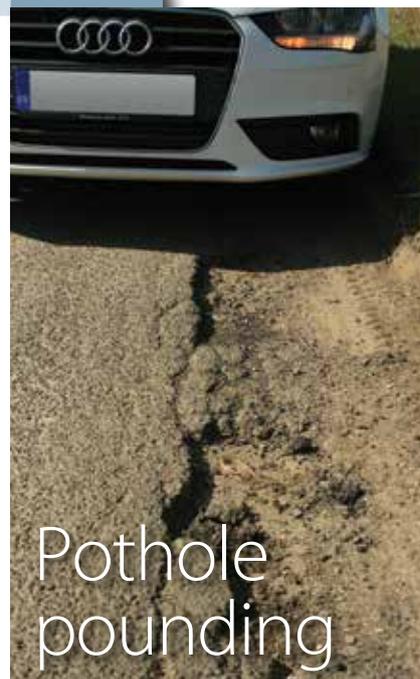
Transport for London Commissioner Sir Peter Hendy paid particular tribute to MPA along with the Road Haulage Association and Freight Transport Association for "getting on board" with efforts to reduce casualties.

MPA members were major contributors to the development of the CLOCS standard

which is being facilitated by TfL for national use. The standard is now increasingly being required by national contractors for all site deliveries and sets out driver training, vehicle equipment, fleet management and contractor/client requirement for all types of delivery vehicles from 3.5 tonnes gross vehicle weight upwards.



## ROADS



## Pothole pounding

**THE cost to get the local road network in England and Wales back into reasonable condition has soared from £10.5 billion to £12 billion over the past year according to the latest Local Authority Road Maintenance (ALARM) Survey.**

Although more than two million potholes were filled in England and Wales the previous year, the damage caused by last winter's record rainfall is predicted to have counteracted much of this work and highways departments anticipate worse road conditions to come with a higher one-time catch-up cost to restore roads to an acceptable state.

The number of compensation claims for personal injury and damage to vehicles has also spiralled by 20 percent over the last year, adding up to a £31.6 million bill for councils in England and Wales.

Urging central Government to introduce an "invest to save" policy, the Asphalt Industry Alliance's Chairman, Alan Mackenzie, said: "The Government has made significant additional funds available but money spent on repairing damage never goes as far as money invested in planned, preventative maintenance."

## COAST

## Defending Aberystwyth

**MAJOR repair work to Aberystwyth's sea defences will be completed in time for the busy summer season, thanks to the supply of high-quality concrete from TG Group's local plant. The popular seaside resort was badly affected by last winter's extreme storms, with extensive damage to its promenade, harbour, marina and jetty with its economy facing a big hit.**

With a concrete plant in the town and an efficient fleet of delivery vehicles, TG Group offered the perfect local solution to supplying the high volumes of concrete needed. Working closely with other local contractors, the company is currently involved in

various other restoration projects along the Ceredigion coast.

Managing director, Tudor Griffiths said: "We are proud to be part of the restoration and re-building of this beautiful coastline, and are determined to finish on or before deadline."



## CONCRETE



Photo: © Hulfton + Crow

## Blending into history

**OXFORD, famed for its “dreaming spires”, is host to two inspiring new examples of sustainable use of concrete – the award-winning Gateway Buildings at St. Antony’s College (pictured) and Hill Top House, a stunning Japanese-style family home which nestles comfortably in an Edwardian terrace.**

Architect Julian Lipscombe of Bennetts Associates says the challenge at St Antony’s was to transform the built identity of the college and bring more students onto site in a character that is “quintessentially Oxford”. “We felt there was a solidity and degree of permanence to a concrete structure which, for a

building like an Oxford college that will be around for centuries to come, is robust with monolithic qualities that will stand the test of time.”

In contrast, Hill Top House, the overall winner of the 2013 Concrete Society Awards, employs a system of precast walls, floors, roof and stairs. In a process that took just six days, factory-finished concrete panels from Cornish Concrete were lifted in place from the delivery truck and structurally tied together using stainless steel loops and rods.

**More detail on both projects:**  
[www.concretecentre.com](http://www.concretecentre.com)

## CONSERVATION

## Bat boost

**MPA will be working in partnership with the Bat Conservation Trust (BCT) to help reverse the serious decline of bats in the UK.**



Photo: Hugh Clark / Bat Conservation Trust

MPA’s Biodiversity and Nature Conservation Group were introduced to the world of bats at a recent meeting, when guest speaker, Dr Carol Williams, Director of Conservation at the BCT, explained the threats faced by bats of all species and what can be done to conserve them.

A wide range of practical ways in which MPA and its members might help in the conservation effort were explored at the meeting. These include promoting natural habitats for the insects on which bats feed and providing somewhere for the bats to roost, such as buildings, carefully-sited bat boxes or by retaining trees with holes, cracks, crevices or loose bark on a site.

## ARCHAEOLOGY

## Seabed treasure

**MARINE aggregate teams that keep their eyes peeled for archaeological treasures from the seabed have been rewarded in a scheme run by the British Marine Aggregate Producers Association (BMAPA). The awards recognise best practice in applying an archaeological reporting protocol developed in partnership between the industry and English Heritage (see page 7).**

The 2014 winners are:

■ **Best attitude by a wharf - Lafarge Tarmac’s Burnley Wharf, Southampton**

Recently finds have included materials from a downed Luftwaffe aircraft

■ **Best attitude by a vessel - Hanson Aggregate Marine’s Arco Arun**

The crew reported the most finds discovered by vessels

■ **Most significant find - Lafarge Tarmac’s Bedhampton Wharf**

A pewter medical syringe (below) thought to date from the late 1800s.



Both the BCT and MPA are looking forward to future collaboration and to putting these ideas and more into practice.

Carol Williams commented: “I would be delighted to see shared aims bringing our working relationship closer together to the benefit of all involved - and who knows, maybe bats will be a feature of future MPA biodiversity awards.”

## PROJECTS

# Trams triumph

**THE arrival of the first tram into Edinburgh city centre under its own power was an important milestone in the history of Leiths Group subsidiary Markon.**

It marked the successful completion of a series of major construction contracts secured by the company on the Edinburgh Trams project spanning the last four years and generating just under £1 million turnover.

Fulfilling contracts for seven major contractors, Markon's involvement has included extensive works associated with advance utility diversions, road markings, anti-skid, imprint surfacing, planing and joint sealant works, as well as specialist works on off-street sections and at the new tram depot at Gogarburn. Edinburgh Trams will be opened to the public later this year.



Photo: Leiths (Scotland) Ltd

## AWARDS

# Concrete achievements

**THE winners of the British Precast Best Practice Awards and the 50th anniversary of the association were celebrated at a special dinner which followed the successful PRECAST2014 exhibition and conference in Leicester.**

The Innovation Award went to J&P Building Systems for a new design methodology for precast stairs, while Decomo UK won the Project Award for The Forum in Southend-on-Sea (pictured). Sustainability Awards went to Forticrete for its energy efficient lighting project, and Carbon8 Aggregates for the manufacture of carbon negative, lightweight aggregates.



The Health and Safety Award was won by Brett Landscaping & Building Products for an improved traffic management system at its Cliffe factory complex in Kent. Achievement awards went to Brett's Cliffe management team and to Chris Taylor of Stanton Bonna.

## FUND

# Grants give benefits

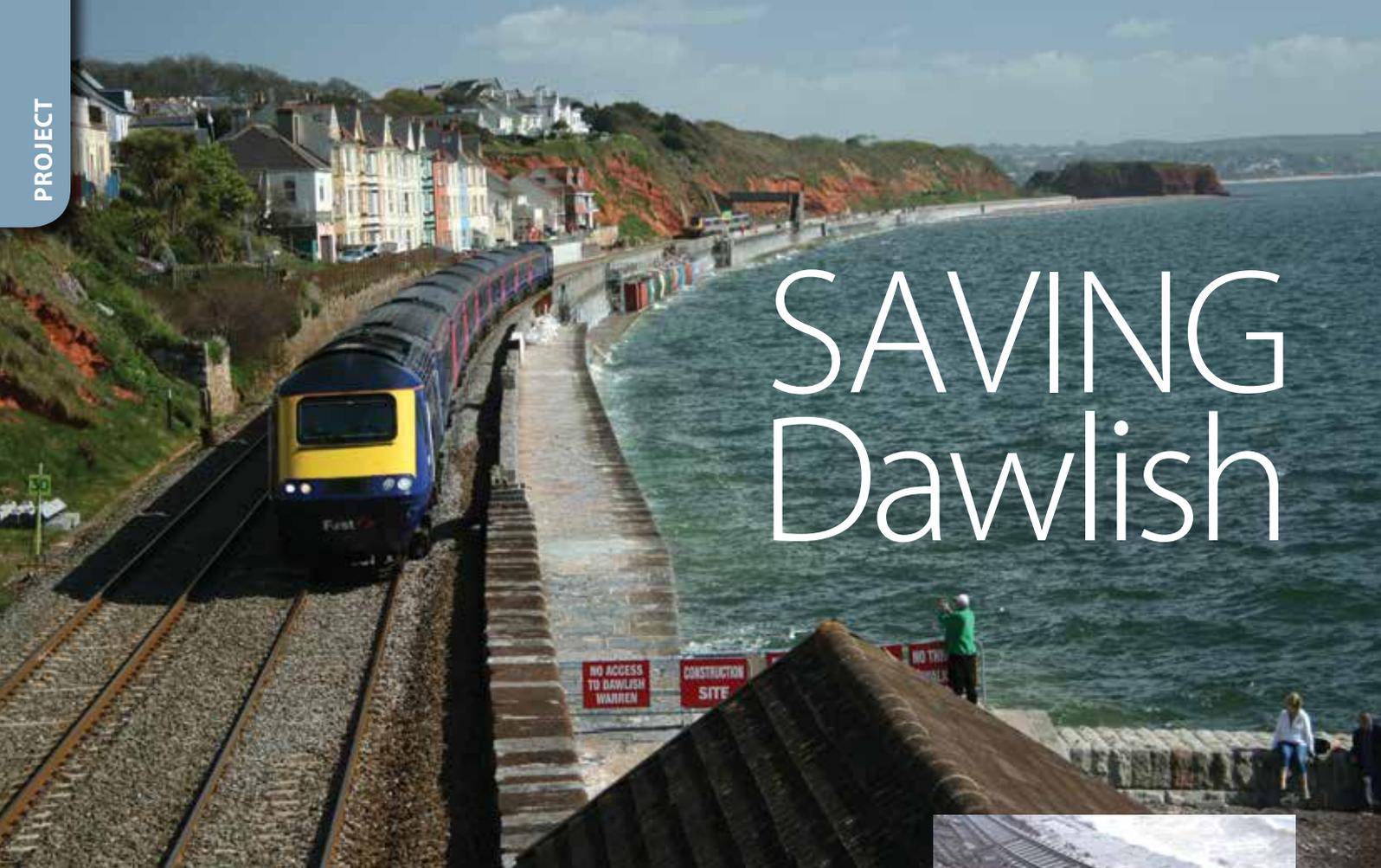


**THE Aggregates Levy Sustainability Fund for Wales goes from strength to strength in supporting projects that make a difference to communities affected by quarrying. Administered by the Welsh Government, the fund is supported by a £2 levy imposed on each tonne of stone extracted from Welsh quarries.**

Awards have recently been presented to two successful projects from 2013. Winner of the community section was the restoration of a large Victorian community hall next door to St Catherine's Church, in Pontypridd. The hall was in a sorry state of repair but the church could see the potential for it to become a vibrant and welcoming community hub in the town and achieved it with £400,000 worth of help from the fund.

A project that has transformed Llanymynech Rocks on the Welsh border into one of the most important butterfly habitats in Wales was chosen as the best environmental project for 2013. It won a £55,000 grant to clear land and control invasive plant species in order to restore the limestone grassland so important to many butterfly species. Montgomeryshire Wildlife Trust chairman Bob Williams and Eley Hart, operations manager at the trust, received their award from the Rt Hon Carwyn Jones, First Minister for Wales, at MPA's annual seminar in Cardiff.

# SAVING Dawlish



APRIL 2014 – normal service resumes

It was probably the most dramatic of all the shocking images from the storms of the past winter – one of the UK's main railway lines left hanging in mid-air by the battering that the coastline at Dawlish took from the sea.

**A key transport artery to the south west was severed and the economy of the region took a £20 million a day hit as engineers piled into what David Cameron referred to as a "Herculean" recovery effort. It was made possible in no small part by the products and skills of the mineral products industry.**

What started on 4 February as 80 metres of sea wall was breached by the waves and washed out to sea grew within a fortnight to more than 90 metres with the track ballast also carried off and adjoining homes left in a precarious state.

First step was to cut the rails, lay the concrete-sleepered track over the breached area and cover the whole area in sprayed concrete to offer additional resistance to the next high tide and buy some time. Then came 11 shipping containers which were welded together and each filled with 50 tonnes of stone to create added protection for reconstruction.

The rebuilding job relied heavily on production of 96 heavy duty bespoke concrete retaining walls which came from Hanson's floors and precast works at Somercotes in Derbyshire. Technical sales manager Martin Bolton agreed the approach after being invited to an emergency meeting with main contractors Amalgamated Construction. Design manager David Chamberlain then worked through the night on the designs and production manager Joe Sheehy got the job underway.

Hanson Design Solutions commercial director Mark Baillie was delighted by his team's response under pressure. "We went from the initial meeting to production of a heavily engineered bespoke product in four days – it was a fantastic achievement," he says.

Meanwhile the more local Hanson Premix operation worked nights and weekends to produce and deliver 1,500 metres of ready-mixed concrete which had to be off-loaded



FEBRUARY 2014 – a main artery cut



MARCH 2014 – concrete security

on the road above the railway line and pumped 200 metres to the site by Professional Concrete Pumping.

Aggregate Industries was another important material supplier, with both aggregates and ready-mixed concrete going to the various contractors who together made it possible for the railway line to reopen two weeks ahead of schedule on 4th April. Another great triumph for mineral products and people.