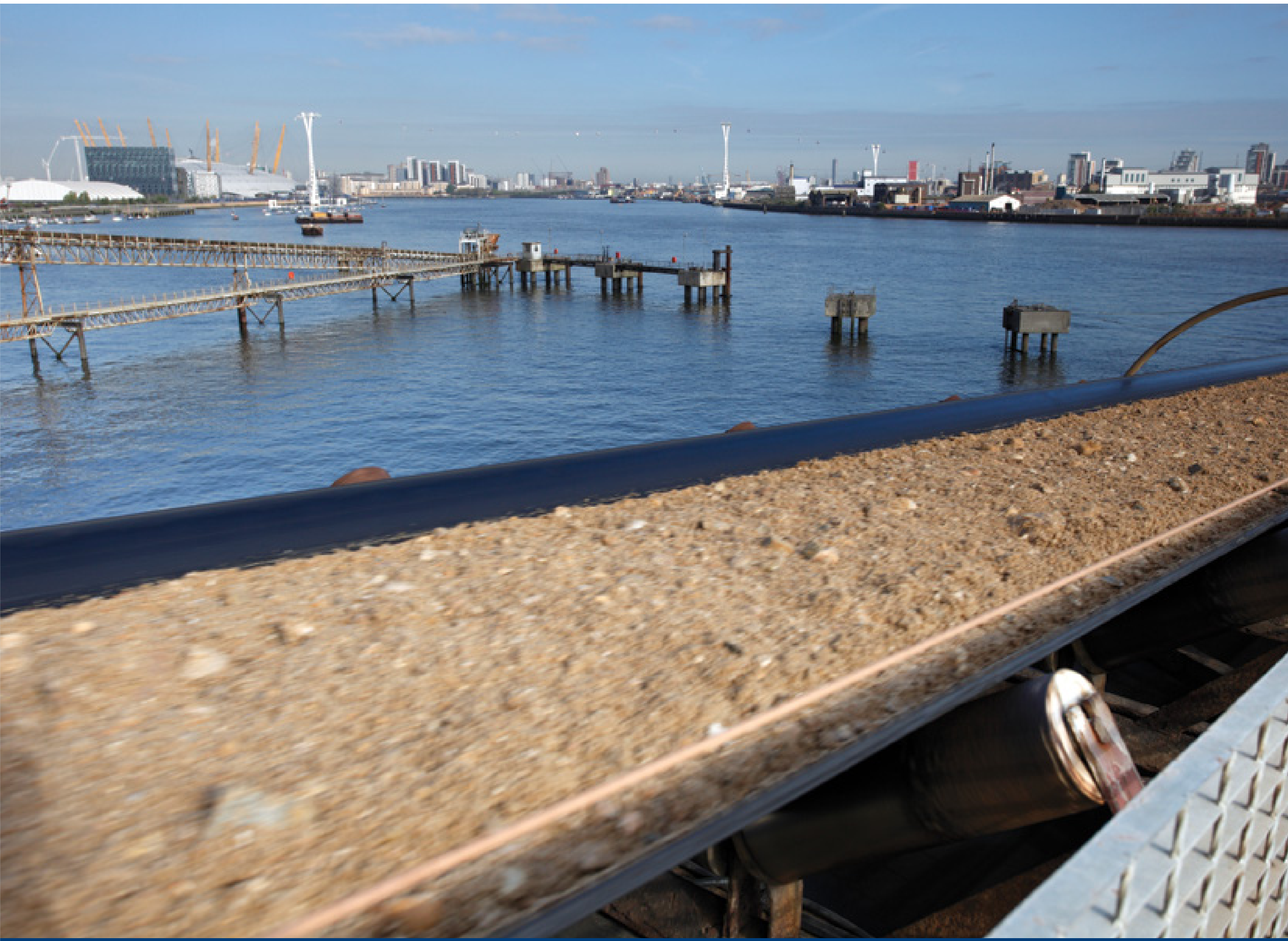

Mineral Products Association

Engagement and delivery
. . . a continuing commitment

Summary Sustainable Development Report 2014

make the link
to mineral products

HIGHLIGHTS

In addition to the summary MPA SD Report MPA publishes more detailed industry information for cement, concrete, lime and marine dredged aggregates

Market recovery started in mid-2013. Although focussed on London and parts of South East England and housing markets, improvements are now evident throughout much of the UK

There is a cross party commitment to increasing housing supply and the quality of our infrastructure, bringing increasing demands for sustainable construction materials

95% of recorded sales of aggregates, asphalt , cement and concrete are certified as responsibly sourced to BES 6001, highlighting the sustainability benefits of indigenous UK supply chains

Following the early achievement of the 2009 to 2014 safety Hard Target MPA sets new extremely challenging five year target within the overall objective of Zero Harm

MPA and members continue to lead industry action to improve the safety of vulnerable road users and MPA becomes a CLOCS champion

GB continues to lead Europe with recycled materials having a 28% share in the aggregates market, three times higher than the European average

MPA Cement publishes a cement Environmental Product Declaration (EPD) covering 100% of domestically produced Portland cement

New analysis indicates carbon dioxide emissions per tonne of production from all cement manufacturing sites are 25% lower than 1998

Asphalt industry works with partners to highlight opportunities for lower temperature and more carbon efficient asphalt mixes

MPA starts development of a water strategy and British Precast highlights contribution of concrete paving in Sustainable Urban Drainage Systems (SUDS) as part of an increasing focus on water

MPA identifies 6,706 hectares of future site restoration dedicated to the creation of priority habitats

MPA works to increase number of locations contributing to its National Nature Park

FOREWORD

Sustainability is central to what MPA does. This summary report, supported by more detailed information on the MPA's Sustainable Development website and significantly more product information in the sustainable development reports for Cement, Concrete, Lime and Marine Aggregates, helps to illustrate that principle.

From 2008 our sector had to manage the deepest recession on record and while the revised official data now indicates that the economy did not experience a double dip recession, our industry certainly did and market volumes in 2012 declined to mid 1960s levels. While MPA members have maintained their commitment to sustainability there are some areas in the 2013 results where performance has gone backwards, for example health and safety, carbon emissions and engagement, and we need to understand the reasons for this and take the necessary action.

Our recovery started from mid 2013 and although concentrated on housing markets and activity in London and parts of South East England we are now seeing improving levels of business in most parts of the UK. This brings challenges of a more positive kind as we manage the consequences of growth. There is a general agreement that as a country we have serious deficiencies in our housing stock and in the quality of our infrastructure. Government has taken a range of actions to increase housing supply, increase investment in areas such as transport and energy and to encourage local development and regeneration through initiatives including Local Enterprise Partnerships and the Regional Growth Fund. Increasing devolution is likely to increase focus on development and job creation.

All this means continuing demands for mineral products. Our contribution to growth is that we will seek to meet these demands in a responsible and sustainable manner. We will review what we need to do to further embed and improve our sustainability performance. From Government and regulators we need support and partnership, for example so that we have continuing access to mineral resources and that our energy intensive industries are allowed to remain competitive.

We really do welcome and appreciate the co-operation and partnerships we have with our many stakeholders and would be happy to discuss any issues covered in this report or in the complementary information we produce.

Nigel Jackson – Chief executive

PRIORITIES

Health and Safety

Improving the health and safety of all those working in our industry and the general public have been key priorities for the MPA and member companies for a number of years.

The industry has achieved substantial improvements over the past 15 years but injuries and fatalities continue to occur and continuing efforts are required to move towards the ambition of Zero Harm. Following the 83% reduction in MPA members' reportable incidents (RIDDOR) between 1999 and 2009, MPA introduced a 50% reduction target for employees' Lost Time Incident Frequency Rate (LTIFR - a more rigorous measure) from 2009 to 2014. This target was achieved during 2013 and, although the reported LTIFR measure for the full year worsened in 2013, we have seen renewed progress in 2014. MPA is also working to help improve the health and safety of contractors working in the industry and to date over 5,000 contractors have achieved the industry Contractor Safety Passport. To improve public safety support for members and to discourage trespass in active and disused quarries MPA produced an action plan including new Guidelines for members and better data collection. Transport and road safety is an area of increasing concern and action. Over 30,000 industry drivers have been awarded a Driver Skills card following successful completion of the Site Safety Awareness training course operated by the industry's Mineral Products Qualifications Council. MPA and members have continued to lead action to improve road safety for cyclists and other vulnerable road users and MPA has aligned its Vulnerable Road User Safety policy with CLOCS (Construction Logistics and Cyclist Safety), a TfL facilitated construction industry initiative to reduce collisions between construction industry vehicles and cyclists. MPA gave evidence to the House of Commons Select Committee Inquiry into cycling safety and continues to promote awareness and action to make our roads safer.

Action. A further 65% LTIFR reduction target has been set by 2019 for the membership scope of MPA which now includes precast concrete and dimension stone. MPA is now focussing on the delivery across the industry of the range of "Safer by…" initiatives and resources developed to support company action and to improve contractor safety. We will also take further action and initiatives to improve public and road safety.

Sustainable Products

Industry products are an essential element of plans to improve our housing supply, develop a secure and greener energy supply, improve our transport networks and other key elements of our infrastructure such as flood defences and water and sewerage systems.

There has been significant action to ensure that industry operations and products meet high sustainability expectations and continue to contribute to the development of a sustainable built infrastructure and a Circular Economy. 28% of the GB aggregates market was supplied by recycled and secondary materials in 2013, three times higher than the average European market share, the cement industry used 1.5 million tonnes of wastes and by-products as fuels and raw materials and the lime industry reduced waste sent to landfill by 44% between 2011 and 2013.

The mineral products sector has been the most pro-active industry in demonstrating that industry products are responsibly sourced through the supply chain and 95% of aggregates, ready mixed concrete, asphalt and cement sales recorded were certified to the Responsible Sourcing Standard BES 6001. Resource Efficiency Action Plans (REAPS) have been published for the precast and ready-mixed concrete industries and research on reduced temperature asphalts funded by MPA, the Refined Bitumen Association and the Highways Agency has been completed at TRL. MPA The Concrete Centre has continued to work with designers and developers to promote the construction of efficient, sustainable and aesthetic buildings and structures and has launched guidance on how to achieve credits within BREEAM New Construction (2014) and British Precast has highlighted the contribution precast products can make to Sustainable Urban Drainage Systems (SUDS). MPA Cement has published an Environmental Product Declaration (EPD) setting out the UK cement industry's life cycle environmental impact and it covers 100% of domestically produced portland cement.

The industry also produces a range of non-construction products and materials which are essential throughout the economy, for example in the production of glass, iron and steel, chemicals, pharmaceuticals and for many other industries and activities including the use of agricultural lime to help improve the fertility and environmental performance of our farmland.

MPA continues to be heavily engaged in the review and development of standards in all product areas – an essential contribution to the development and supply of sustainable products and materials.

Action. Ensuring the efficient and sustainable use of industry products and materials is a long term continuing process. Initiatives such as the development of EPDs and the operation of REAPs will improve the availability of information to industry, clients, customers and other industry stakeholders and strengthening our links with these same groups will help to ensure that materials and products are used sustainably. Two issues of particular importance will be water, MPA is developing a strategy to improve knowledge of water issues related to the sector and to encourage efficient use of the resource; and waste, MPA will continue to be focussed on enabling the most efficient and sustainable use of wastes and by-products in the sector.

Climate Change

In general there was a small general increase in sector carbon emissions in 2013, against a background of a longer term decrease in emissions.

For example carbon dioxide emissions from cement plants on a per tonne of production basis have fallen by 24.9% compared with a 1998 baseline. These cement data have been produced on a revised basis to take account of emissions from all cement manufacturing sites whereas previous data covered only kiln sites manufacturing clinker. The new data provides more comprehensive outputs.

The use of cementitious materials such as ground granulated blast furnace slag and fly ash in concrete mixes and products helps to reduce carbon emissions and the asphalt industry is looking at greater use of lower temperature asphalt mixes to minimise carbon emissions.

For the less energy intensive materials and products the carbon emissions associated with delivery transport are relatively more significant and the average road delivery distances for aggregates and asphalt increased in 2013, although there was a slight reduction for ready-mixed concrete. This is likely to be a reflection of the fact that industry demand started to recover from the second quarter of 2013 but there has been a reduction and rationalisation in industry operating units during the recession, resulting in some increase in delivery distances. However, the industry remains a very significant user of rail transport and over ten million tonnes of aggregates are delivered by marine dredger to wharves close to urban construction markets. The industry is working closely with rail and marine aggregates interests to maximise future supply through these modes.

The use of mineral products makes a major contribution to wider national targets for carbon reduction. For example 90% of the energy and emissions related to buildings are due to the lifetime use or operation of the building. The use of well designed concrete construction can significantly reduce "in use" energy because the thermal mass effect of concrete creates more even temperatures within buildings, therefore reducing the need for additional heating and cooling. The use of mineral products is also essential for the construction and operation of lower carbon energy generation capacity, including electricity from nuclear and renewable plants. MPA The Concrete Centre has produced guidance on the use of concrete gravity bases for offshore wind turbine development, a more environmentally friendly method of construction than driving piles into the seabed.

Action. MPA will continue to promote opportunities to minimise operational carbon emissions and publicise action taken by member companies. This includes the development of low carbon energy sources on site including solar and wind energy, anaerobic digestion and other technologies and we will seek to sustain the replacement of fossil fuels by waste-derived fuels. For the energy intensive cement and lime industries there is growing concern that the impact of UK measures such as the carbon price floor will threaten the competitiveness of the UK industry. To date European State Aid rules prevent the cement and lime industries from receiving the compensation for the cost of the carbon price floor which other UK energy intensive industries are permitted to receive.

continued overleaf

Biodiversity

The mineral products industry remains committed to improving UK biodiversity and habitat creation through the management and restoration of industry sites, notably quarries.

MPA has identified former industry sites with public access which constitute an MPA National Nature Park and an online map of the sites available on the MPA website now includes around 50 locations. MPA has also continued to collect data on priority habitats created on members' sites. To date we have identified 5,189ha of priority habitats created, 8.6 km of rivers restored and 48 km of hedgerows planted by members. Looking forward we have identified an additional 6,706ha of future priority habitats planned in approved site restoration plans, a further 0.7 km of river restoration and 117km of new hedgerows. These figures are not comprehensive as the data remains incomplete but provide an indication of the scale of activity of the industry. MPA and the industry have valuable partnerships with key organisations such as Natural England, the RSPB and Wildlife Trusts, the Bumblebee Conservation Trust, the Freshwater Habitats Trust, the Bat Conservation Trust and the National Biodiversity Network. We continue to support the Nature After Minerals project.

Action. Key issues will be to improve the coverage of data collected by MPA on Priority Habitat creation and to build on our National Nature Park initiative. We will also run the MPA's biennial Restoration and Biodiversity awards scheme in 2015. We continue to make representations to Government to use a small proportion of the annual £300 million aggregates levy revenue for a new Community Fund focussing on local community, biodiversity and conservation projects.

Summary results 2014 (2013 data)

Sustainable consumption & production	2012	2013
Aggregates production (primary) GB	133mt	143mt
Recycled/secondary materials GB	54mt	55mt
Asphalt sales GB	18.5mt	19.2mt
Ready-mixed concrete sales GB	13.9m^3	15.5m^3
Cement – domestic sales GB	7.8mt	8.3mt
Cementitious materials GB	10.5mt	11.2mt
Quicklime and Dolomite (GB)	1.71mt	1.70mt
Per capita production aggregates (GB/Europe)	3.0t/5.1t	3.2t/na
Per capita production cement (UK/Europe)	125kg/318kg	128kg/314kg
Aggregate sites with certified EMS (% of survey)	91%	86%
Cement sites with certified EMS	100%	100%

Climate change & energy	2012	2013
CO_2 emissions directly from cement production (kg/tonne)	687	694
CO_2 emissions from crushed rock (kg/tonne)	4.4	3.7
CO_2 emissions from sand and gravel – land won (kg/tonne)	3.7	3.9
CO_2 emissions from asphalt production (kg/tonne)	22.4	27.4
CO_2 emissions from ready-mixed concrete prod (kg/tonne)	0.80	1.0
Share of sales moved by rail (aggregates)	9.9%	9.5%
Share of sales moved by rail (cement)	17.8%	16.9%
Average road delivery distance (aggregates)	44.2km	49.8km
Average road load (aggregates)	21.8t	22.0t
Marine dredged aggregates landings for construction use	10.3mt	10.6mt

Natural resources & enhancing the environment	2012	2013
Priority Habitats created to date by MPA members		5,189ha
Priority Habitats planned by MPA members		6,706ha
Waste and by products recovered as raw materials and fuels by cement industry	1.54mt	1.45mt
Archaeology – land investigated pre-planning permission	120ha	402ha
Archaeology – land investigated post-planning permission	154ha	321ha
Proportion of UK land area being quarried (aggregates)	0.10%	0.10%
Ratio of land restored to land prepared for quarrying	1:1.3	1:1.1
Area of seabed dredged	96.7km^2	98.6km^2

Creating sustainable communities	2012	2013
Lost Time Incident Frequency Rate	4.87	5.13
Employment – direct by MPA members (excl cement, precast)	19399	19940
Employment – direct by MPA members (cement)	2548	2584
Number of recorded complaints (aggregates)	338	269
Number of community liaison groups (aggregates)	224	148
Liaison group meetings (cement)	34	39
Recorded visitors to aggregates sites, cement kiln sites	38,528	29,365

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Front cover: Marine dredging providing a 24 hour sustainable service. Images courtesy of Lafarge Tarmac Marine Ltd, Cemex UK, Singleton Birch and Lafarge Tarmac.

The Mineral Products Association is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries.

For further MPA information visit www.mineralproducts.org

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