

2001 review

an update from the British Marine Aggregate Producers Association

Working for Britain

The year 2001 was one of all-round progress for the British Marine Aggregate Producers Association as it put in place a number of key initiatives to secure the industry's future.

MOVES towards establishing a new long-term source of aggregates in the eastern English Channel were a highlight of 2001.

Members of BMAPA are working closely with other operators, the Crown Estate and Government departments to ensure a strategic and environmentally-responsible approach for the region as a whole.

BMAPA has also advanced on a number of other fronts in order to ensure that dredging around the UK coastline takes place in partnership with other stakeholders operating in the marine environment. In particular, new research has been commissioned to better

understand the impacts of dredging on marine life. The aim is to ensure that the best scientific data is available to the industry and regulators when considering the need for new reserves.

Similar progress is being made to develop understanding and best practice in marine archaeology as it relates to aggregate extraction. One outcome of the research will be the development of practical guidance for operators, regulators and other interested parties.

All these and other developments are covered in more detail elsewhere in this review.

Highlights

A joint BMAPA / Crown Estate initiative reported a 10 per cent increase in the area licensed for dredging during 2000, but a 25 per cent decrease in the area actually dredged

Several areas of the eastern English Channel have been identified as a potentially valuable new source of aggregates. A regional environmental assessment is being developed

An £80,000 research project to assess the impact of aggregate dredging on marine life developed throughout the year and will report in 2002

Research began to further the understanding of the historic marine environment and to ensure that dredging takes place without damaging important sites

Projects supplied with marine aggregates ranged from the Channel Tunnel Rail Link to vital flood defence works on the south and east coasts

New source of aggregate

Discovery of significant new sand and gravel resources in the eastern English Channel offers a potential solution to the increasingly serious shortage of quality licensed reserves to serve the south-east of England.

AFTER nearly 30 years, many of the marine aggregate industry's 74 existing licences are nearing the end of their commercial lives.

The need to identify a long-term replacement source of material is, therefore, an urgent one if the industry is to continue to satisfy around half of London's sand and gravel needs and a third of the requirements for the south-east as a whole.

Marine aggregate operators recognised several years ago that the answer might well lie further offshore in the eastern English Channel.

As a result of extensive investigation, six applications (five from BMAPA members) have been made to the Department for Transport, Local Government and the Regions (DTLR) for permission to extract aggregates. A further four areas are still being surveyed.

Recognising the need for a strategic approach, operators are preparing a regional environmental assessment to provide an overall framework within which the individual applications can be assessed by DTLR. It will also inform a regional management plan to control operations, including specific mitigation and monitoring schemes.

The proposed new region covers a total area of some 1,000 square kilometres. It is located around 30 miles offshore in water depths of

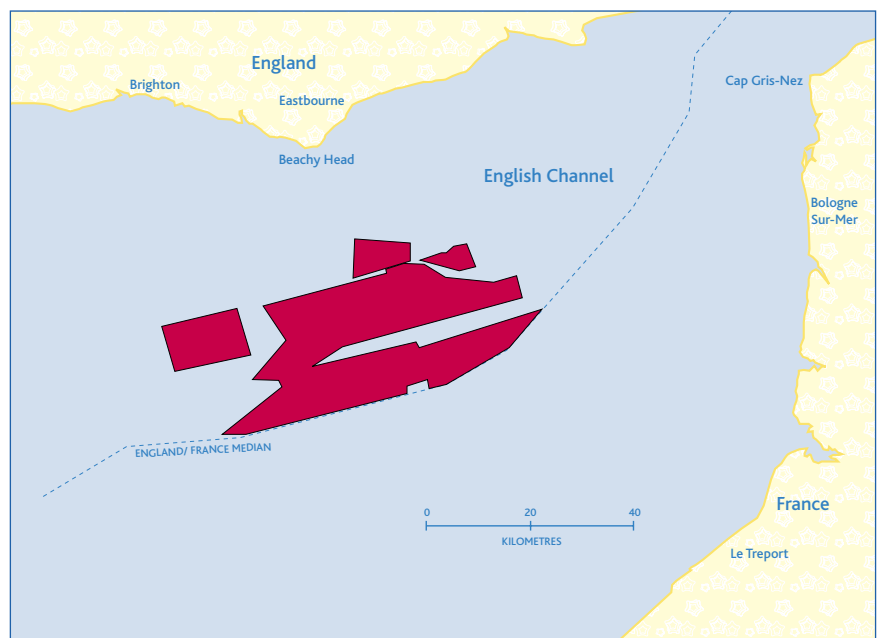
over 40 metres. Current dredging areas are typically less than 10 miles offshore and in water depths of less than 20 metres.

Former BMAPA chairman Kevin Seaman has been closely involved in the liaison process. He stressed that the actual area of seabed to be dredged at any one time would be considerably reduced by effective resource management plans.

"The *Area Dredged* information reported by BMAPA and the Crown Estate shows that the area actually dredged is a very small

proportion of the seabed licensed," he said. "This will equally apply to any new permissions granted in the eastern Channel."

Extensive discussions between the applicants, the wider marine aggregates industry and the regulatory authorities have taken place during the year. Ongoing liaison and co-operation is expected throughout the consideration of this important proposal.



The areas identified in the eastern Channel



Making the case

BMAPA has featured regularly in national, local and trade media as the industry has sought to raise its profile. Industry marine geologists Dr Andrew Bellamy and Dr Ian Selby have both been called upon to make the industry's case on radio and national television, dealing with key issues such as the effect of dredging on the coastline.

"Marine sand and gravels were formed thousands of years ago during and just after the Ice Ages," said Dr Bellamy. "They are now fossil and unrelated to the coast and its sediments. Independent coastal impact studies carried out for dredging areas

demonstrate that marine aggregate extraction will not change natural coastal processes."

Meanwhile, the association has commissioned a series of brief issues-based videos to complement its promotional programme "Aggregates from the sea". Topics covered will include marine archaeology, resource management, environmental impact and coastal protection. The videos will be available on both VHS and CD-format. Copies will be available by contacting BMAPA at the address shown on page 8.

New regulation framework

PROCEDURES under which applications for marine aggregate extraction are determined are changing.

BMAPA members have welcomed plans by the Department of Transport, Local Government and the Regions to create a new framework for controlling marine aggregate extraction.

The new regime will implement the requirements of the European Habitats Directive. Alongside the statutory regulations, a set of procedural guidelines (Marine Minerals Guidance 1) and a draft policy framework specifically for English waters (Marine Minerals Guidance 2) will be issued.

MMG2 will, for the first time, establish specific government policy for marine aggregate extraction and provide a framework consistent with its approach to environmental protection and sustainable development.

"The industry has long recognised the need for a statutory procedure and welcomes the greater clarity which the new framework will provide," says BMAPA chairman Barry Dennett. Meanwhile, the National Assembly for Wales has been developing its own parallel marine aggregate dredging policy. BMAPA was represented on the technical advisory group during the preparation of the draft.

welcome to this first issue of the BMAPA Review.

From small beginnings in the 1950s, the marine aggregate industry has grown to occupy a pivotal position in helping to satisfy Britain's overall aggregate needs. With environmental pressures on land-based quarries continuing to grow, and recycled aggregates now approaching their ultimate potential, our role in satisfying the demand is an important one.

We must, nonetheless, be sensitive to the environment and communicate with those who may have concerns regarding the potential impacts of dredging. Only by doing so, and by satisfying those who regulate our work, can we progress.

One of the main areas in which we now need to move forward is in achieving permission to extract sand and gravel from deeper waters in the eastern English Channel. This newly-identified resource offers a potential solution to an increasingly pressing problem as many of our original reserves become exhausted.

Through responsible management and transparent reporting, the industry is committed to working towards best practice.

I hope you find the information contained in this review interesting. We will be happy to expand upon it wherever necessary.

Barry Dennett
Chairman



Canary Wharf



Southampton Football Stadium



Pevensey Bay

Project focus

Marine aggregates are playing an essential role in construction projects over a wide area of the UK. We review just a few of those underway over the past 18 months.

THE 69-mile long **Channel Tunnel Rail Link** is one of the UK's most demanding construction projects – and one that is using marine aggregates extensively.

The first of the CTRL's two sections (from the tunnel to north Kent) is now 75 per cent complete. Work is well underway on section two, which will extend the line into a revamped St Pancras station via new international stations at Stratford and Ebbsfleet and a tunnel under the Thames at Dartford.

With completion planned for 2007, passengers can look forward to a halving of journey times between London and the tunnel and a total trip to Paris of just 2 hours 20 minutes.

One of the great virtues of the marine aggregates industry is its ability to deliver materials close to where they are needed, so reducing lorries on the roads. Nowhere

has that been more significant than at **Canary Wharf**, where two new towers are being completed. More than 400,000 tonnes of sand and gravel has been delivered to wharves on the river Thames and then carried across to the construction site on barges.

Down on the south coast, the stadium on which **Southampton FC** is basing its campaign for Premiership success owes much of its strength to sand and gravel supplied from the neighbouring marine aggregate wharves.

The £32 million St Mary's Stadium provides an exceptionally high standard of comfort, safety and spectator facilities. Its 32,000-seated capacity enables the Saints to achieve the gates they need to boost income in an environment that attracts top talent.

Marine aggregates have a particularly important role to play in saving stretches of

the coastline from the ravages of the sea, most notably along the east and south coasts. At **Pevensey Bay** in Sussex, work started in August 2001 on a £30 million scheme to safeguard some 3,000 homes from flooding.

A total of nearly six miles of coastline are being tackled under the first private finance initiative (PFI) scheme for sea defences. Shingle dredged from two nearby licensed areas is being pumped ashore, where bulldozers re-profile the beach.

High profile projects in Wales range from the **Cardiff Bay barrage** – which used 1.6 million tonnes of marine sand in its concrete – to the **Great Glasshouse** at the National Botanical Gardens in Carmarthenshire.

Billed as a world-class botanic science showpiece, the oval building with its massive glass span takes visitors on an international journey through some of the earth's most



Millennium Bridge

endangered ecosystems from Chile to the Canary Islands.

In the north west, marine sand has contributed greatly to the **Liverpool Women's Hospital** (for floor screeds) as well as to the blocks and bedding sand for new pavements in **Liverpool city centre**.

The £500 million regeneration strategy for Gateshead in the North East, is one of the largest projects of its kind in the UK and is heavily reliant on marine sand and gravel landed at local wharves. The **Baltic project** on the Gateshead quayside, which forms the flagship of programme, aims to replace years of industrial decline with new culture and commerce. It will provide 500 jobs and 1,500 new homes.

Amongst its cultural attractions will be the **Baltic Centre for Contemporary Art**, the biggest temporary art space in Europe, and

Music Centre Gateshead, a pioneering international centre for music discovery.

Linking these developments with Newcastle's quayside is another project whose strength owes much to marine aggregates - the £22 million **Gateshead Millennium Bridge**. The world's first rotating bridge, it has attracted world-wide attention because of its unique design and provides a footpath and cycle-way link.

marine stewardship

BMAPA's immediate past-chairman, Kevin Seaman, was amongst the delegates at a round-table forum called by Environment Minister Michael Meacher to discuss marine stewardship. The session was a preliminary to a report reviewing UK Government strategy and policy on the marine environment due to be published by the Department for the Environment Food and Rural Affairs during 2002. "As a responsible industry operating in the marine environment we believe we have much to contribute to the ongoing debate," said Mr Seaman.

festival of the sea

A marine aggregate dredger attracted hundreds of visitors when it went on show to the public at the International Festival of the Sea in Portsmouth during August 2001.

Amongst visitors was transport minister David Jamieson, who was escorted on a tour of the *City of Chichester* by then BMAPA chairman, Kevin Seaman.

ecology workshop

BMAPA members were amongst the delegates in a workshop sponsored by DEFRA to investigate the feasibility and practicality of using ecological quality objectives to monitor and manage marine aggregate extraction. The concept has been discussed at the highest level in Europe, and the workshop was a useful opportunity to explore how it could be practically applied.

new issues

BMAPA was represented at the annual meeting of the International Council for the Exploration of the Sea (ICES) WGEXT working group, held in Stromness, Orkney in April. Regulators and scientists from across Europe and beyond met for a four-day meeting to discuss developing issues relating to the regulation and assessment of marine aggregate extraction.



Investigating **marine archaeology**

The marine aggregate industry is particularly conscious of its responsibility to marine archaeology.

A PIONEERING research project into the historic marine environment has been jointly funded by BMAPA and the Royal Commission for the Historic Monuments of England (RCHME). The three-part project examines the interaction between marine aggregate extraction and the potential for damage or loss to prehistoric (up to 10,000 years) archaeological evidence.

Dr Ian Selby, who is managing the project on behalf of BMAPA, said: "Ten thousand years ago the sea level was up to 100 metres lower than at present and much of what is now seabed was dry land. Our prehistoric ancestors

could have walked or even lived upon some of the aggregate deposits now being dredged."

The project will examine the types of evidence that may be present within marine aggregate deposits and consider the significance of these to the wider understanding. The end-product should ensure that future archaeological assessments of marine aggregate sites are better informed.

Dr Selby added: "The final part of the project will be a guidance note for considering the potential impact of marine aggregate

extraction upon the historic marine environment. This will establish best practice and offer practical guidance for developers, regulators and other interested parties.

"The really exciting thing is that the project as a whole has been jointly funded and developed by the industry and regulator in tandem."

The final reports for all three elements of the project are expected to be complete in early-2002, and will be available on the BMAPA website www.bmapa.org.



British Marine Aggregate Producers Association
156 Buckingham Palace Road
London
SW1W 9TR
Tel 0207 730 8194
Fax 01207 823 6512
email: bmapa@qpa.org
www.bmapa.org

our **members**

Britannia Aggregates
British Dredging
Hanson Aggregates Marine
Kendall Bros (Portsmouth)
Northwood (Fareham)
Norwest Sand and Ballast Co
South Coast Shipping Co
United Marine Aggregates

our **structure**

main committee
policy sub-committee
environment and planning sub-committee
communications sub-committee
operations sub-committee
marine aggregates technical panel



BMAPA is one of the constituent bodies of the Quarry Products Association, the trade association for the aggregates, asphalt and ready-mixed concrete industries.

The Area Involved

In 1999, BMAPA and the Crown Estate signed a joint initiative to undertake a rolling review of the areas licensed for marine aggregate extraction and the areas actually dredged.

THE latest *Area Involved* report, represents the third in an ongoing series and provides information for the year 2000. Against the background commitment to responsible management through continual development, the report highlights that although the area licensed has increased, the total area dredged actually reduced from the previous year.

The key statistics to emerge were:

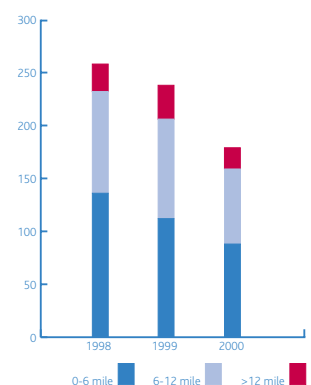
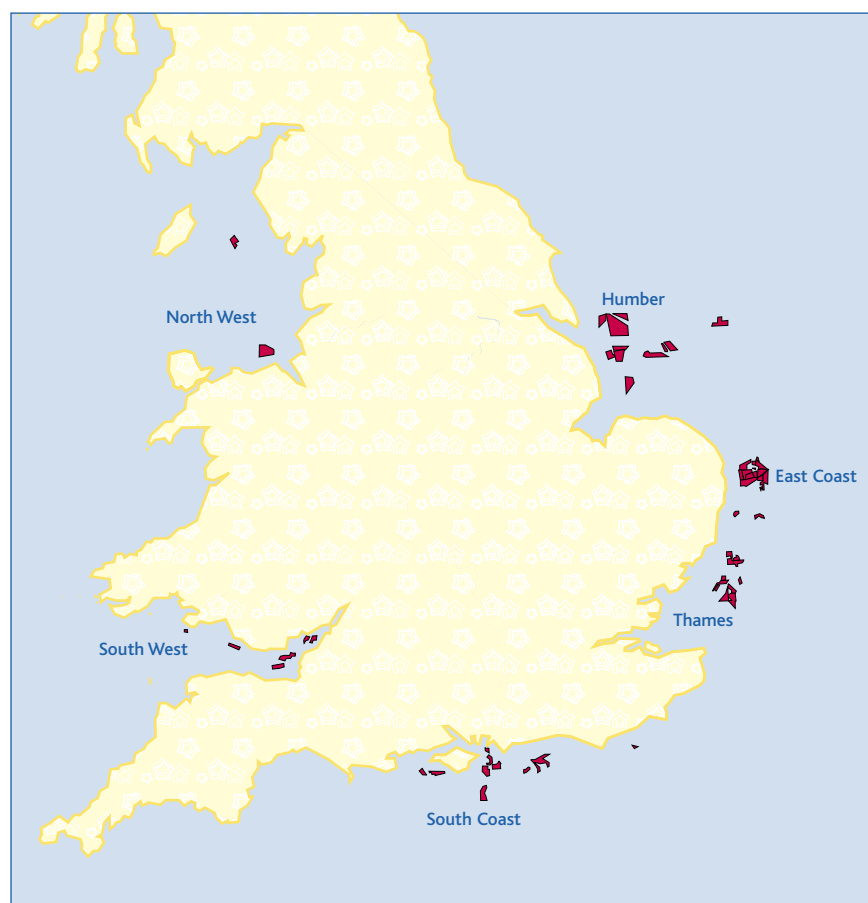
- The area licensed for dredging increased by 10 per cent to 1506km²
- The area actually dredged reduced by 25 per cent to 179km²
- 90 per cent of dredging activity took place in 11.89km²

The report for 2001 is due to be issued in mid-2002 and will include a greater level of detail made possible by a four-fold improvement in the resolution of the analysis used to interpret electronic monitoring system data.

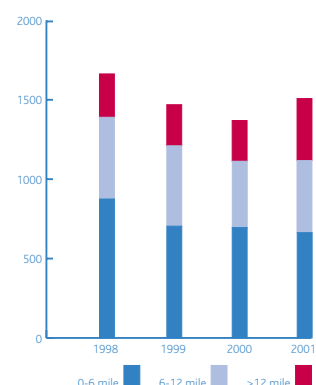
"As we begin to look at new dredging areas, it is very important that we demonstrate effective management of the resource within our existing licences," says BMAPA's development manager Mark Russell.

"While there may be an increase in the area licensed over time as new permissions are granted, that will not necessarily result in an increase in the area dredged. The *Area Involved* initiative is a measure of the commitment to environmental performance by both the industry and the Crown Estate."

The dredging regions with their production licences



Area of seabed dredged



Area of seabed licensed



photo courtesy Marine Ecological Surveys

Biological impact

A 45 square-mile area of seabed off the east coast is the focus for an £80,000 BMAPA research project to develop the understanding of the impact of aggregate dredging on marine life.

During August 2000, over 180 stations were sampled in and around production licence area 408, located some 75 miles east of the Humber estuary.

As the licensed dredging area on which the research is being undertaken is relatively new, a comprehensive history of operations, including zoning plans and tonnages removed, is available to assist in the interpretation of the biological results.

Once complete the project will provide new information on:

- The impact of dredging on biological community structure
- The extent of any impact beyond the immediate boundaries of the area
- Rates of recovery of biological communities in and around dredged areas.

In parallel, a further research project into the recovery of dredged areas is being undertaken by the Centre for Environment Fisheries and Aquatic Science (CEFAS), under contract to DTLR. BMAPA members have provided information on potential sites, and are represented on the steering group.

Coastal impact studies

GIVEN concerns over marine aggregate extraction and the potential for coastal impact, an independent audit of the assessment procedures used has been completed. The research, undertaken by University College London on behalf of BMAPA and the Standing Conference on Problems Associated with the Coastline (SCOPAC) concluded that the procedures used to assess the potential coastal

impact of new marine aggregate applications were internationally leading in most respects.

The report (which can be downloaded from www.bmapa.org) made a number of recommendations to improve the assessment process. Initiatives to develop some of these are to be investigated by BMAPA during 2002.

research

Research initiatives contributed to by BMAPA over recent months include: Procedural Guidelines for Benthic Surveys (CEFAS/DTLR), Southern North Sea Sediment Transport Study (various), Archaeological Research in the Solent (Hants and Wight Archaeological Trust), Comparative Impact Assessment of Fine Sand Supply in South Wales (NAW/Symonds Group). In addition, BMAPA members have contributed data and vessel time to several ongoing research projects being undertaken by the United States Government's Minerals Management Service.

wharf visits

Representatives from government departments have been amongst visitors to marine aggregate wharf facilities and dredgers as part of an ongoing BMAPA information programme. Development manager Mark Russell said: "The best way to build positive perceptions is to show people at first hand exactly what we do and how we do it." Further visits are planned – or can be arranged by contacting bmapa@qpa.org.

playing safe

Marine operators have once again given their full support to the Quarry Products Association's annual *Play Safe...Stay Safe* initiative to warn children of the dangers of treating aggregate wharf facilities as adventure playgrounds.

safety code

All BMAPA members must achieve certification to the new International Safety Management Code by 1st July 2002. The purpose of the code is to provide an international standard for the safe management and operation of ships and for pollution prevention.

pilot campaign

BMAPA members have continued to campaign for change in the regulations governing the use of pilots in the Thames. Current regulations present significant problems in complying with the hours-of-work regulations when delivering to wharves along the Thames, which between them handle seven million tonnes of marine aggregates a year.