



Gunwharf Quays

## Big benefits from one small wharf

Marine aggregate wharves are usually low-profile places – but the benefits to society that flow from them can be considerable

AS a stylish new centre in Britain's most famous maritime city, it is appropriate that Portsmouth's £200 million Gunwharf Quays should quite literally draw its strength from the seabed.

The millions who flock to its 70 designer outlets, 20 bars and restaurants, 11-screen cinema and 26-lane bowling alley owe their enjoyment to the many thousands of tonnes of marine aggregate dredged off the Isle of Wight.

Several marine wharves have played a significant role in supplying the needs of Gunwharf Quays. They include UMA's operation at Bedhampton which, in addition to the material it provides within the city, has also supplied a host of other projects stretching as far inland as Aldershot.

But Bedhampton's aggregates are also the raw materials used in ready-mixed concrete delivered by Hanson Premix and Tarmac Topmix to projects like the 1,000-pupil Miltoncross secondary school in Portsmouth.



Bedhampton wharf

The £12.4 million school was designed, built, financed and is now operated by Grannag, a consortium of King Sturge, Ballast Wiltshire and the Royal Bank of Scotland. It operates five different faculties, each benefiting from some of the best facilities in the UK.

Meanwhile, Bedhampton is also the source of the 6,500 cubic metres of concrete being supplied to Dean and Dyball for a £3 million reservoir under construction at Farlington for Portsmouth Water. The 42 million-litre resource will be part of a

network of five reservoirs serving the needs of 200,000 people over a wide area of the city and its suburbs.

'Few people in the Portsmouth area are aware that so much of their built environment is dependent upon aggregate from the seabed or that it comes to them via one modest sized wharf on the outskirts of the city,' says UMA's managing director, Kevin Seaman.

'They are, however, benefiting greatly not just from the material but from the fact that importing it by ship to the heart of the area where it is needed much reduces lorry traffic on local roads.'

He adds: 'Bedhampton is, of course, just one of the wharves that serve Portsmouth's needs. You will find similar marine aggregate wharves all around the coastline. They provide a vital local service – without them, the nation would need many more land-based quarries.'



# 2003 review

an update from the British Marine Aggregate Producers Association

## Maintaining momentum

The foundations are in place for Britain's marine aggregate industry to build an increasingly sustainable future. But there are still some tough challenges to be faced

FORTY years ago it barely existed. Yet today, the marine aggregate business has earned its place at the national table as an essential industry and stands at the threshold of an important new era.

As the recently appointed chairman of the British Marine Aggregate Producers Association, Martin Drury would be the first to agree that its ability to succeed in the years ahead is conditional upon a number of factors. Perhaps the most important is the need to work in partnership with a wide group of stakeholders, ranging from government to fishermen and from environmental groups to archaeologists.

'We have achieved real momentum over recent years and that is due in no small part to the leadership which has been provided by my

immediate predecessors, Kevin Seaman and Barry Dennett,' he says. 'Beyond all else, we have earned respect as a responsible industry that cares about the impact of its work.'

'The challenge now is to maintain the impetus and to work closely with other parties who may still feel threatened by what they regard as a competing activity. We need to understand and respond to their concerns, and to demonstrate beyond all else that our activities are sustainable for several generations to come.'

It is through a series of partnerships that BMAPA has already begun a continuous review and programme of sustainable policies that are covered individually elsewhere in this review. While the industry's economic and social

## Highlights

The industry supplied nearly 22 million tonnes of marine aggregate – some 73 per cent of it for construction and beach replenishment in the UK

Operators continued to provide information needed by government to support applications for new dredging licences in the eastern English Channel

BMAPA signed a memorandum of understanding with the Wildlife Trusts to co-operate in the interests of marine conservation

BMAPA and English Heritage published a joint guidance note designed to address the challenge of seabed archaeology

Operators in the Bristol Channel launched a three-stage plan to secure the future of sand supplies to South Wales

English Heritage distributed some £1.25 million of aggregates levy funding to support marine projects



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### our members

Britannia Aggregates  
DEME Building Materials  
Hanson Aggregates Marine  
Kendal Bros (Portsmouth)  
Northwood (Fareham)  
Norwest Sand & Ballast Co  
RMC Marine  
United Marine Aggregates  
Volker Dredging

### our staff

Marine aggregates officer – Richard Griffiths  
BMAPA development manager – Mark Russell

### Committees and chairmen

Main committee – Martin Drury  
Policy sub-committee – Martin Drury  
Environment and planning sub-committee – Richard Pearson  
Communications sub-committee – Kevin Seaman  
Operations sub-committee – Brian White  
Marine aggregate technical panel – Derek Ovington



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

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Dredging underway in one of the UK's six regions

## Managing the resource

It is now five years since BMAPA and the Crown Estate jointly committed to an ongoing review of licences in order to ensure responsible management of available reserves

THE total area of seabed from which Britain's marine aggregate operators draw sand and gravel has reduced steadily over recent years.

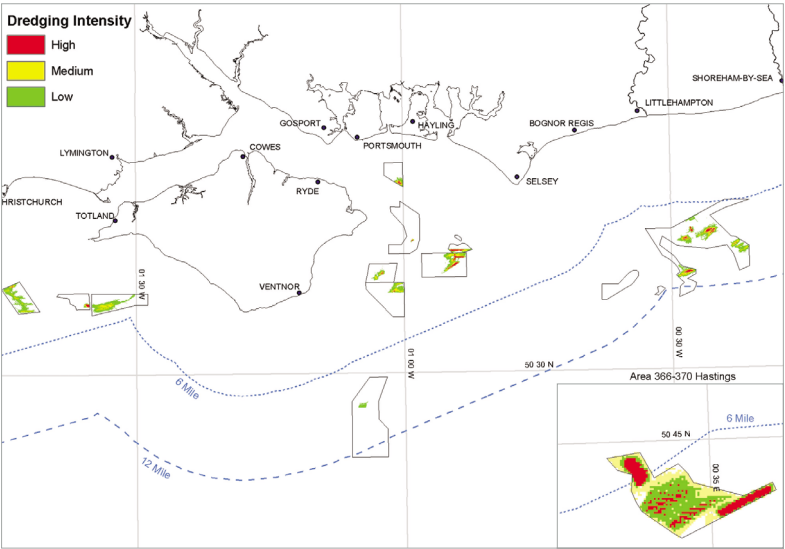
Statistics from the latest joint review by BMAPA and the Crown Estate show that the total area of seabed dredged has declined from over 222 sq km in 1998 to less than 150 sq km in 2002, when the industry dredged a total of just under 22 million tonnes. The area dredged within six nautical miles of shore declined from a peak of over 107 sq km in 1999 to 70 sq km in 2002.

The total area of seabed licensed has decreased from 1,458 sq km in 1998 to 1,301 sq km in 2002.

New licence applications in the eastern English Channel are more than 20 nautical miles from shore and would substantially shift the balance further offshore.

Now in its fifth year, the rolling review of licences contains detailed information and charts for each of six dredging regions.

The latest report benefits from an important new move in the direction of accountability following the introduction by the Crown Estate



Dredging intensity in the South Coast region

of more sophisticated analysis through a computer-based Geographic Information Service (GIS). The use of variable grid cell analysis now provides a four-fold increase in resolution and enables much more detailed information to be presented.

A copy of the review is available on the BMAPA website [www.bmapa.org](http://www.bmapa.org).

## Working together



Modern technology provides accurate guidance

FISHERMEN around a wide area of the British coastline are benefiting from a joint BMAPA/ Crown Estate initiative designed to provide regularly updated advance information on areas to be dredged.

The six-monthly charting system gives the fishermen added reassurance, especially when laying any fixed equipment. The charts highlight any changes from the previous six months and provide company contacts for further information.

The move has been welcomed by Neil Wellum, chairman of the East Coast Dredging/Fishing Liaison Committee and a DEFRA district

inspector of fisheries. He is keen to promote co-operation and effective liaison between two essential industries that often share the same sea space, in order to minimise the potential for interference between the two.

'It is quite natural that fishermen should be concerned about the potential effects of dredging,' he says. 'There is potential for immediate conflict over working in the same area but also fears of cumulative impacts on the marine life that sustains fish.

'The marine aggregate industry recognises the need to communicate and this initiative is a highly practical way of minimising interference.'

## Marine partners

BMAPA has joined forces with the Wildlife Trusts in a partnership that aims to boost conservation in the marine environment.

The memorandum of understanding signed by Barry Dennett of BMAPA and Martin Spray of the Wildlife Trusts commits both parties to building on existing knowledge. It will involve working together on mutually beneficial research, sharing knowledge and promoting best practice in dredging.

Barry Dennett said that, while the two organisations had worked together previously,

this represented a public declaration of BMAPA's intention to minimise the impacts of its work.

Martin Spray commented: 'Conservation of our marine environment can only be achieved by key stakeholders working together to share skills, knowledge and resources. We are delighted to take forward our partnership in this way. It proves that industry and environmentalists can find common ground.'

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contributions are easily demonstrated, it is rightly subjected to more intense scrutiny when it comes to environmental impacts and the need for prudent use of an ultimately finite resource.

'The pillars of sustainable development are crucial to our future and they are all inter-linked and inter-dependent,' says Martin Drury. 'BMAPA represents a highly professional industry and I am confident that, if we continue to produce the credible, social and environmental evidence that is needed through informed research, then we will succeed.



Martin Drury

'The need for new licences in the eastern English Channel is fundamental, not just to us an industry but to those we supply to in meeting the needs for London and the south east. The average age of the UK dredging fleet is now well past half-life at 16 to 17 years and there is no way the huge and necessary investment in new high tech ships for deeper waters will be forthcoming without reasonable certainty of reserves.

'If the marine aggregate industry cannot make its proper contribution to regional needs, the material will come from nationally expanded quarries on land or from imports. In both cases, there will be significant economic, social and ultimately environmental impacts, compounding the loss of highly trained, British, maritime skills.'

In the longer term, Martin Drury believes the complexity of marine issues facing governments internationally will necessitate a marine act in order to achieve the necessary levels of co-operation and commitment. 'In the meantime, it is important that the various UK interests achieve some pragmatic and voluntary alignment,' he says.





## An impressive industry

As its landlord for nearly 20 years, the Crown Estate's marine chief, Frank Parrish, is better placed than most to judge the performance of Britain's marine aggregate industry

LOOK out to sea from Dover's white cliffs and you have before you a vast expanse disturbed only by the occasional passing ship. It certainly doesn't look like an industrial landscape.

Yet the ocean around Britain's shores is in reality a bustling 'business waterpark', home to activities ranging from oil and gas to fishing, and from navigation to telecoms. Renewable energy is also now making its presence felt offshore, with the first of a growing network of farms now operational off the Welsh coast; and wave or tidal power could well be the next industry of the sea.

Aggregates are, however, currently the biggest single player, contributing more than £14 million last year to the Crown Estate's £31.9 million of marine revenue. While the sea-bed to the 12-mile territorial limit is historically the property of the Sovereign, its profits are, however, passed on to the Exchequer.

In the case of marine aggregates, the revenue comes from a royalty paid by operators for every tonne of sand and gravel extracted. In the past year, the total was just under 22 million tonnes taken from some 150 square kilometres in around 70 licensed areas.

The man with overall responsibility for this and the Crown Estate's other marine activities is Frank Parrish. In 19 years as head of the marine estate, he has seen the marine aggregate industry grow in stature as well as in maturity.

'It is an industry that has come a long way in a comparatively short time,' he says. 'It has really only existed in its present form since the 1960s and consolidated in the 70s. It is in the past ten years that it has moved on rapidly in terms of the management of its licences and in getting to grips with the environmental challenges.

'It is a definite success story amongst the industries with which we work and there is no doubt that the newer industries like renewable power can learn a great deal from the constructive approach taken by the marine aggregate industry.'

Frank Parrish has been particularly impressed by the degree of co-operation achieved within the industry in the region-wide environmental assessment prepared to support ten applications for dredging in a previously un-worked area some 20 miles off the Sussex coastline. He and colleague Tony Murray are optimistic that planning decisions will be



Frank Parrish: 'the industry is a success story'

forthcoming from the Office of the Deputy Prime Minister during this year.

'There are now a number of industries operating in the shallow seas around our coast and it is becoming crowded,' says Frank Parrish. 'In the main, they co-operate well but they are never going to be perfect bedfellows and all their activities have to be balanced against the need to protect the marine environment and heritage.

'We have been impressed by the way in which the marine aggregate industry has tackled the close-to-shore issues, such as coastal erosion,

and we are confident from the studies undertaken that it is not the cause of the problem. Indeed, it is helping to provide the solution by supplying material for beach repair.

'But, with its existing reserves now much diminished, the industry has to look to the future and that sensibly now lies further offshore. The East English Channel Region offers a rare opportunity for a mature industry to show what it can do on what amounts to a 'greenfield' site.'

As Tony Murray adds: 'It is a unique opportunity but we have to get it right – history will not forgive us if we don't.

'The natural concern on the part of government is that, with ten applications covering one area of the sea-bed, there could be a free-for-all. At our end, we are confident that, if the release of reserves is handled in the right way, the east Channel can be a model of how a new region should be worked by a responsible industry.'

Frank Parrish adds: 'We must now await the government's response to the licence applications. We have to hope not just that it is positive but that its approach to the release of reserves across the region is one which the

**'It is a definite success story amongst the industries with which we work'**

industry can work positively with. We are conscious that some major new investment is needed in dredgers and that operators must have confidence in the long-term future in order to commit the funding.'



IT DOESN'T happen very often but dredging up wartime munitions from the seabed can be a very real hazard for the marine aggregate industry.

The overriding need to ensure the safety of ships' crews has prompted BMAPA to produce a code of practice providing specific advice and step-by-step procedures for dealing with such munitions through to bringing in an ordnance expert and completing an incident report.

Explosive munitions can be dangerous even if they have been in water for many years. They can be a problem right the way through from becoming lodged in the drag head which takes them into the ship, through storage in the hold to ultimate discharge at a wharf.

## New members

BMAPA has welcomed two new members over recent months.

Volker Dredging is a joint venture between two long-established British companies – Robert Brett & Sons of Canterbury and Van Oord (UK) of Newbury. It is also a sister company of Britannia Aggregates, which is another Brett joint venture company.

The company has several dredging licences off the Isle of Wight and off the east coast. It is amongst the applicants for licences in the proposed new eastern English Channel region.

DEME Building Materials is part of the Dredging Environmental and marine Engineering Group and was established in 2003. The company is actively engaged in sourcing and supplying marine aggregates in the UK and is one of the applicants for new licences in the eastern English Channel.



Ancient landscapes

DELVE into the National Monuments Record and you will find not just treasures on land but thousands of ships and aircraft wrecked around the coastline. While the majority are casualties of the past 250 years, some go way back to medieval times.

But the waves also hide 'buried treasure' in the form of ancient landscapes that have been submerged as sea levels rose following the last ice age some 18,000 years ago.

While the potential for better understanding of our cultural heritage is vast, the marine historic environment remains largely a mystery. The responsibility for protection that falls to the clutch of marine-focused industries is, therefore, a substantial one.

## Under a tax



Tax is funding new research

## The past surfaces

From shipwrecks to submerged landscapes, the seabed is rich in history, posing significant challenges for any industry working around the UK shores

Working in partnership, BMAPA and English Heritage have launched a widely praised new initiative to address the challenge. Their joint guidance note, *Marine Aggregate Dredging and the Historic Environment*, has been welcomed as an approach that other marine industries should follow.

Prepared by Wessex Archaeology, the guidance note aims to establish common good practice amongst operators when investigating, mitigating and monitoring areas proposed for dredging.

'BMAPA has very much taken a lead, not just in the UK but Europe-wide,' says Antony Firth of Wessex Archaeology. 'It recognised a potential problem area and took the initiative in partnership with English Heritage.'

TAX collected by marine aggregate operators is being ploughed into a variety of projects that are benefiting the marine environment.

In the area of marine archaeology, English Heritage has distributed a total of some £1.25 million. Projects that have benefited range from major underwater research exercises to detailed desk studies of artefacts that had previously not been fully documented.

One of two fieldwork exercises undertaken by Wessex Archaeology involved testing of the various methodologies – from divers to geophysics – used for investigating wrecks. It is hoped that the work will lead to providing a

'The guidance note will be used not just by operators but by consultants and regulators and should mean that work in this area is now better informed, consistent and cost-effective.'

Work is now underway on a protocol to act as a safety net for discoveries that were not visible to the techniques used at planning stage.

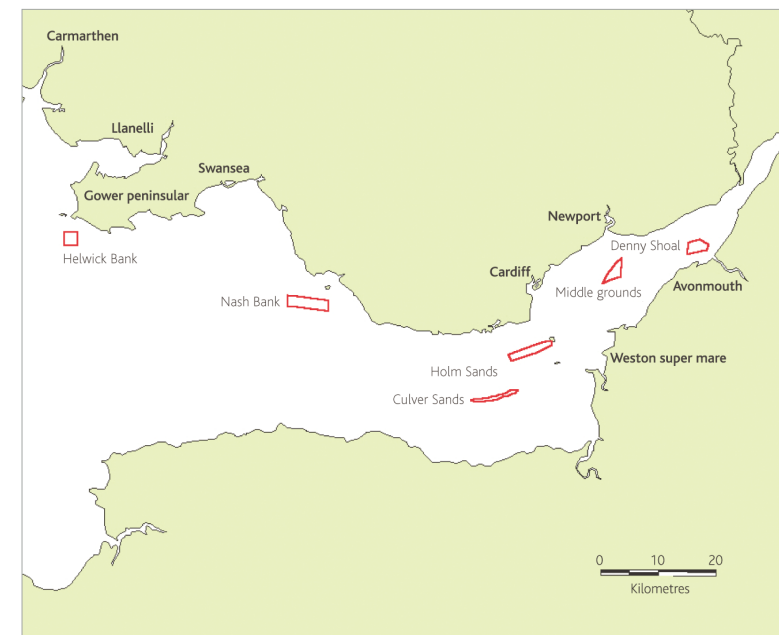
'This will take the whole initiative one important stage further,' says Ian Oxley of English Heritage. 'It should ensure that if an important archaeological site is found during dredging, it could then be properly investigated and documented.'

better understanding of which techniques work best in particular circumstances.

The second project involves a seabed study of submerged landscapes off the south coast. The results are still being assessed but preliminary indications are that sea levels may have risen so that prehistoric coastal plains may have been submerged more rapidly than previously thought after the last ice age.

'It could give us a new understanding of the pressures faced by people who lived in the low-lying areas that were lost to rising sea levels,' says Antony Firth of Wessex Archaeology.

## New strategy in Wales



Dredging licences in the Bristol Channel

The industry has responded positively to moves to phase out dredging in an important licence area in the Bristol Channel

OPERATORS dredging sand in the Bristol Channel have launched a three-stage plan to secure the future of supplies to South Wales.

The move follows the decision by the Welsh Assembly Government to phase out dredging on Nash Bank by 2010 in response to local concerns over coastal erosion.

The three operators working in the Bristol Channel – Hanson Aggregates Marine, RMC Aggregates Marine and United Marine Aggregates – have produced evidence to show that dredging does not cause such problems. They have, nonetheless, welcomed the Assembly's decision to phase out working on Nash Bank rather than end it immediately.

Depletion of reserves on the other main Bristol Channel licence, Holm Sands, has added urgency to the plan which was presented to the Welsh Assembly earlier in the year.

The alternative strategy involves:

- an application to dredge up to one million tonnes pa over 15 years from Culver Sands starting in 2005–06
- an application to dredge one million tonnes pa over 10 years from 2005 from North Bristol Deep
- a study to determine the feasibility of dredging in the outer Bristol Channel from 2010.

Dredging in the outer Bristol Channel would not be easy given that it is more exposed and that heavy investment would be needed in new ships capable of working in the deeper waters.

South Wales uses some 1.2 million tonnes of sand each year, 90 per cent of which comes from marine sources.



Dredging is a solution to costal erosion

## Not guilty

THE government has confirmed that marine aggregate dredging does not cause coastal erosion.

The verdict came from Keith Hill, a minister at the Office of the Deputy Prime Minister, who said in a written answer that there was no evidence of a link. He added that every environmental statement accompanying an application to dredge must include a comprehensive coastal impact assessment.

Meanwhile, environment minister Elliott Morley confirmed to an Environment Food and Rural Affairs select committee that dredging took place only in tightly defined blocks and that the requirements for environmental impact assessments were rigorous.

'Even where dredging has been approved we may, for example, stipulate controls that they can only dredge in particular parts of the block,' he said. 'Dredgers carry satellite positioning so that they are very carefully controlled in the areas where they are active.'