

Report on 12th EMSAGG meeting

EMSAGG held its 12th meeting at CIRIA's offices in London on the 30 October 2003. The success of the EMSAGG conference was reported on and it was agreed that the conference should be repeated in the future. The future development of EMSAGG was discussed, including increasing the member base of EMSAGG and increasing the services EMSAGG provides.

While information on zoning arrangements is widely circulated by individual operators, discussions with the fishing industry identified the need for a clear and up-to-date regional overview. The biannual charts have been produced to define the current active dredge area for eight separate regions. On the reverse of each are the associated co-ordinates for each licence area, together with contact details for the operating companies.

The second issue of the active dredge area charts (dated 30 June 2003) is available to download from the websites of both BMAPA

New zoning information for England and Wales

In their ongoing commitment to responsible management through continual development, the British Marine Aggregate Producers Association (BMAPA) and the Crown Estate released the second set of zoning information for 2003 in July. This confirms their guarantee to provide more detailed information on the zoning of marine aggregate licence areas located around the coastline of England and Wales.

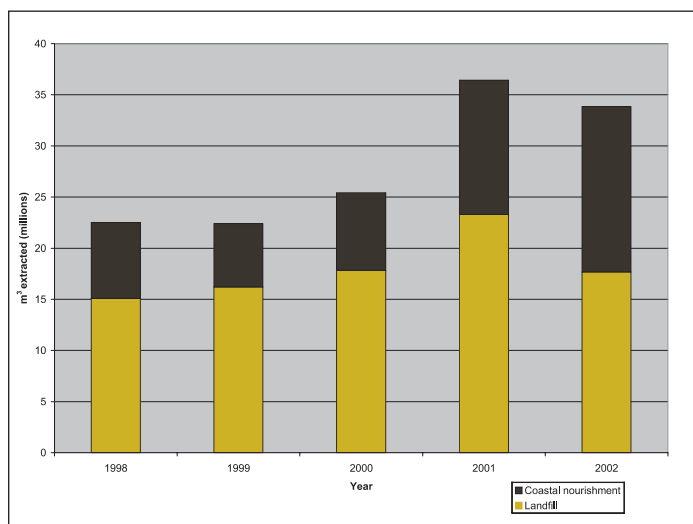
Since 1999, they have been working under a joint statement of intent entitled "the area involved". They have produced a series of annual reports detailing the area of seabed licensed, the fourth of which was issued in 2002.

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Aggregate extraction in Europe

Marine aggregate extraction in the Netherlands

Marine aggregate extraction in the Netherlands showed a decrease in 2002 when compared with 2001, falling from 36.45 million to 33.8 million m³. However, as shown by the chart below, this is still a marked increase on past years extraction.

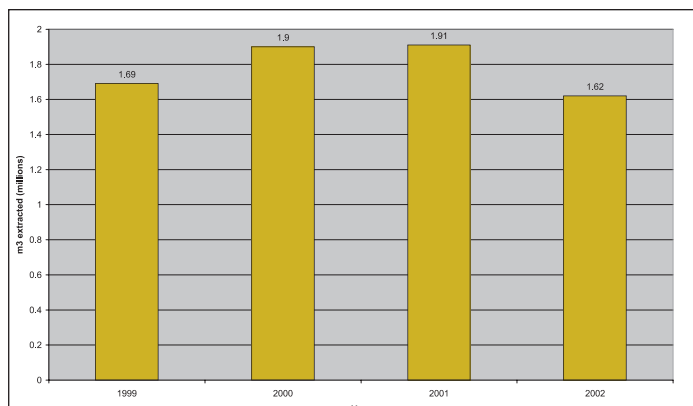


A large proportion of the aggregate extracted in the Netherlands is for beach replenishment projects, with 16.18 million m³ used in 2002. The other main use is for land fill, with a small quantity utilised in concrete and building activities.

Source: Ministry of Transport, Public Works and Water Management, North Sea Directorate

Marine aggregate extraction in Belgium

Last year 1.63 million m³ of marine aggregates were extracted in Belgium. This represents a decrease of 15 per cent when compared with the production of 2001. The only destination showing significant progress was the ports in northern France.

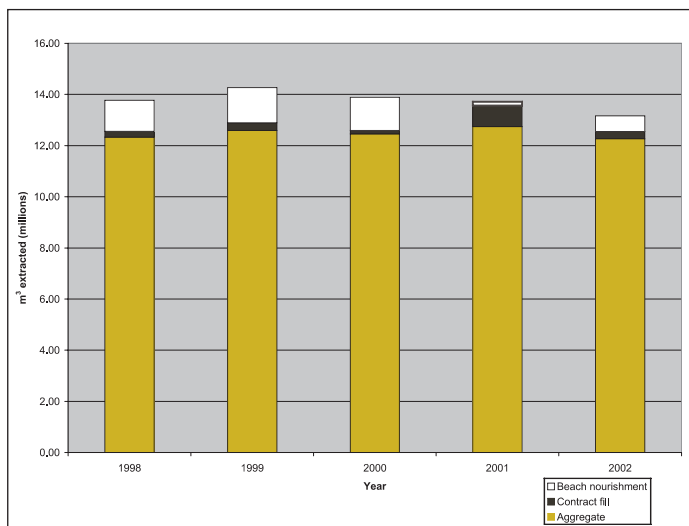


Source: Federal Public Service Economy, SMEs, Self-employed and Energy, DG Quality and Safety, Fund for Sand Extraction

Crown Estate marine aggregate statistics

Each year the Crown Estate publishes a summary of its statistics on marine aggregate extraction in England and Wales. Figures show that over 13.19 million m³ of marine aggregates were extracted from Crown Estate licences during 2002. This is a 3.5 percent decrease on figures for 2001.

The trend for marine aggregate extraction over the past five years is demonstrated in the graph below.



The statistics show that of the total permitted removal, 60 per cent was actually extracted, compared with 62 percent in 2001.

The statistics are divided into six regions covering England and Wales. The East Coast region had the greatest mineral extraction (5.43 million m³), followed by the South (3.47 million m³) and then the Humber (1.82 million m³). The share of extraction is shown in the chart below.

The figures show that port landing of marine aggregate was highest in the Thames Estuary ports (4.6 million m³ landed), followed by the South Coast ports (1.95 million m³ landed).

Exports of marine aggregates to European ports in 2002 totalled 3.73 million m³. This is an 11 per cent decrease in exports to the continent compared with 2001. The top six landing ports and amounts landed are shown in the chart to the right.

Research

BMAPA and English Heritage launch new approach to marine archaeology

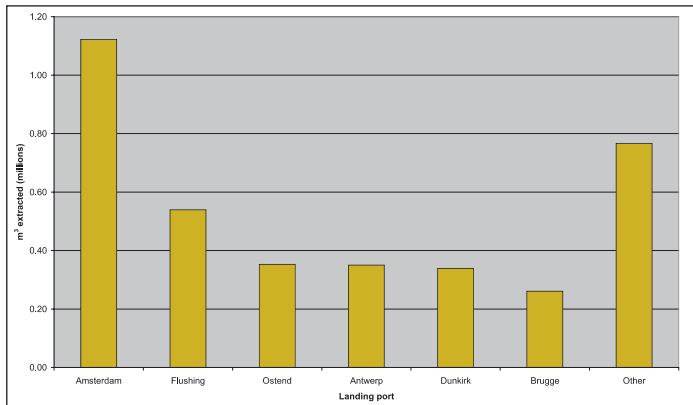
In September 2003, the British Marine Aggregate Producers Association (BMAPA) and English Heritage released a joint publication entitled Marine Aggregate Dredging and the Historic Environment. This guidance note will assist in identifying and understanding issues of archaeological importance when developing dredging areas.

Under the National Heritage Act 2002 the remit of English Heritage was extended to include archaeological sites of all types from the low water line to the 12 mile limit around England. The guidance note, prepared by Wessex Archaeology on behalf of the two organisations, covers both wrecks and submerged landscapes and follows the English Heritage approach to the management, preservation and protection of marine archaeology.

The guidance is the first of its kind for the marine sector and is part of a commitment by BMAPA and English Heritage to work together on relevant issues. It is hoped that this work will provide the foundation for continuing to improve the understanding of marine archaeology and minimise the impacts of essential aggregate extraction.

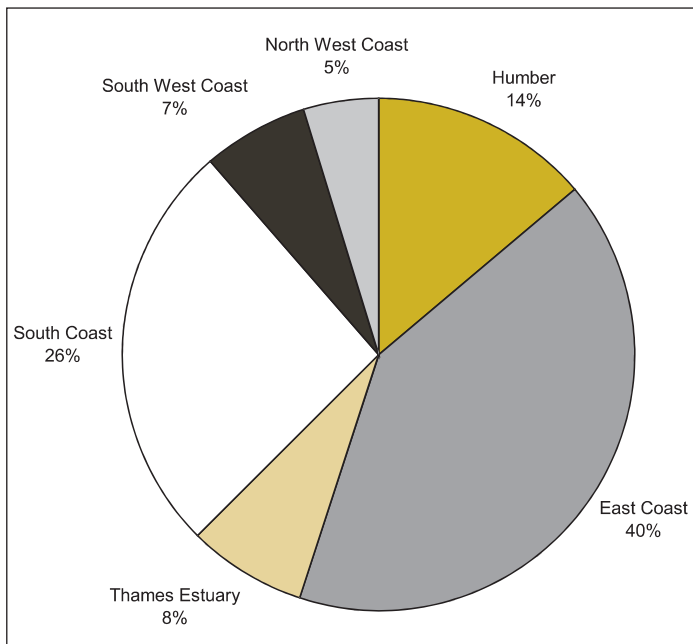
At the reception held to launch the guidance note BMAPA Chairman Barry Dennett said "The responsible approach of two key marine stakeholders has produced a leading piece of work that benefits both the industry and its regulators. Archaeology is an essential part of the heritage that comes from being part of a maritime trading nation and this guidance note provides real process and transparency for others to see how we are tackling the issue."

Copies of the guidance note are available by contacting Richard Griffiths at BMAPA on +44 (0)20 7730 8194 or email bmapa@qpa.org



For further information on these statistics see the Crown Estate website www.crownestate.co.uk

Note A conversion factor of 1.66 has been used to convert tonnage to m³. The Crown Estate is now reporting to ICES in m³



Acoustic classification of sea bed sediments

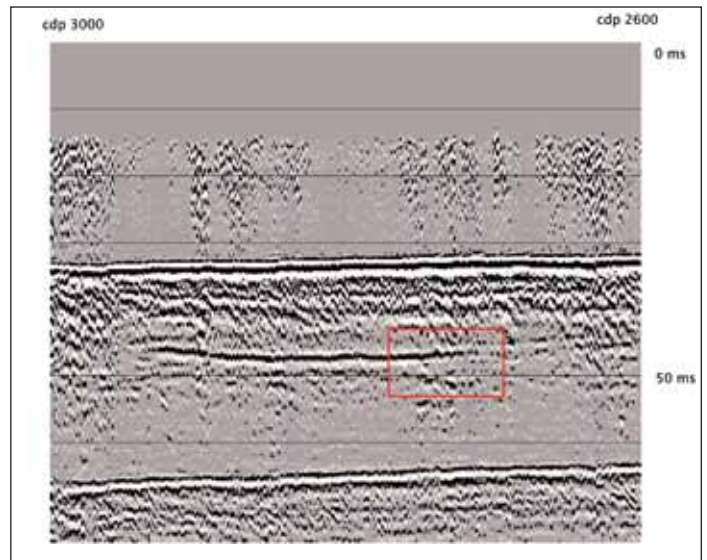
In recent years the detection of coarse sand within the sandy sediments of the North Sea has been an important consideration for the Dutch government (Directorate-General of Public Works and Water Management, North Sea Directorate (RWS-DNZ)). The standard approach for this detection was the extraction of bottom samples, but this approach is no longer satisfactory due to the large amount of bottom samples required and the costs associated.

At the end of 2001, at the request of RWS-DNZ, TNO-NITG organised a workshop for experts from Belgium and the Netherlands to discuss the possibilities of using acoustic techniques to distinguish between coarse and finer sand in order to reduce the number of cores. This workshop resulted in a research study, carried out by TNO. The objectives of this project were to test acquisition parameters and geometries using the in-house equipment of TNO-NITG and to find a suitable configuration for imaging the upper 100 metres of the subsurface. Features that have been studied include the necessary number of channels, the location of source and receivers, the accuracy of the positioning, the CDP-distance and the source and receiver characteristics.

Data processing was directed towards a.o. angle dependant behaviour of the sound wave at the reflector and the ability to determine the sound velocity in the sediment. In addition, an alternative bottom classification technique, originating from the area of underwater acoustics, has been employed. This method is denoted by matched field inversion (MFI). The basic idea behind this technique is that an acoustic field measured on a sonar array, is compared with an acoustic field calculated by a propagation model. These model calculations are carried out for trial sets of the unknown parameters. The trial set that provides the maximum match between both acoustic fields should correspond to the true values of the unknown parameters. Only those parameters that influence the received signals (ie the acoustic propagation) can be estimated.

Beside a number of promising results some shortcomings have been revealed, which have to be improved to achieve a reliable classification of the sediments. Most important will be a better control on source and receiver position. For the MFI, a better calibration of the receiving array is required and the directivity of the source needs to be known exactly. Forthcoming experiments are foreseen for the coming period to show the effects of these adjustments and additional data.

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Reflector indicating boundary between fine and coarse sand.

EMSAGG is supported by: (*funders of EMSAGG)

Babtie
BMAPA*
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