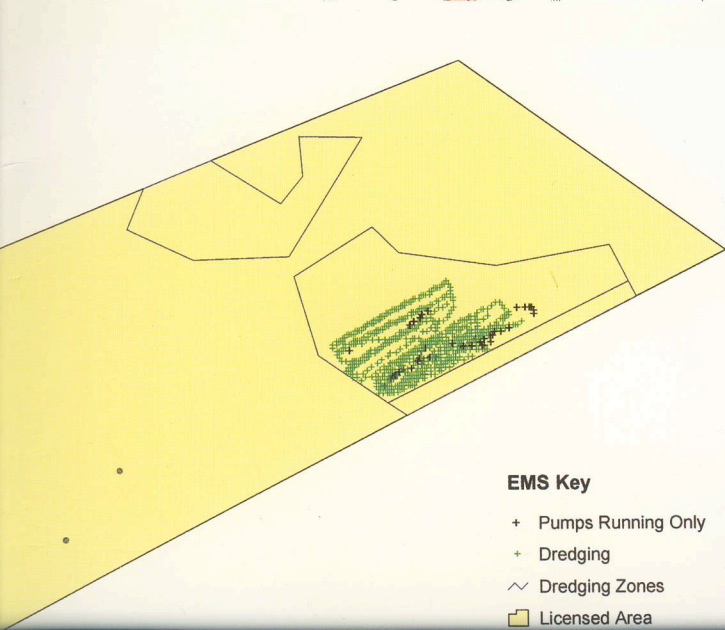
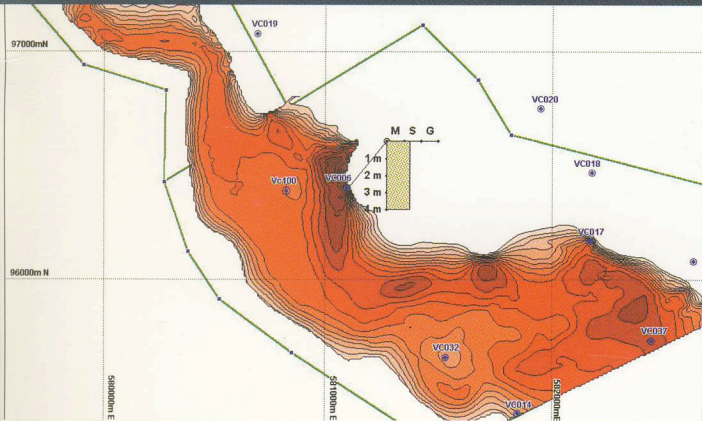
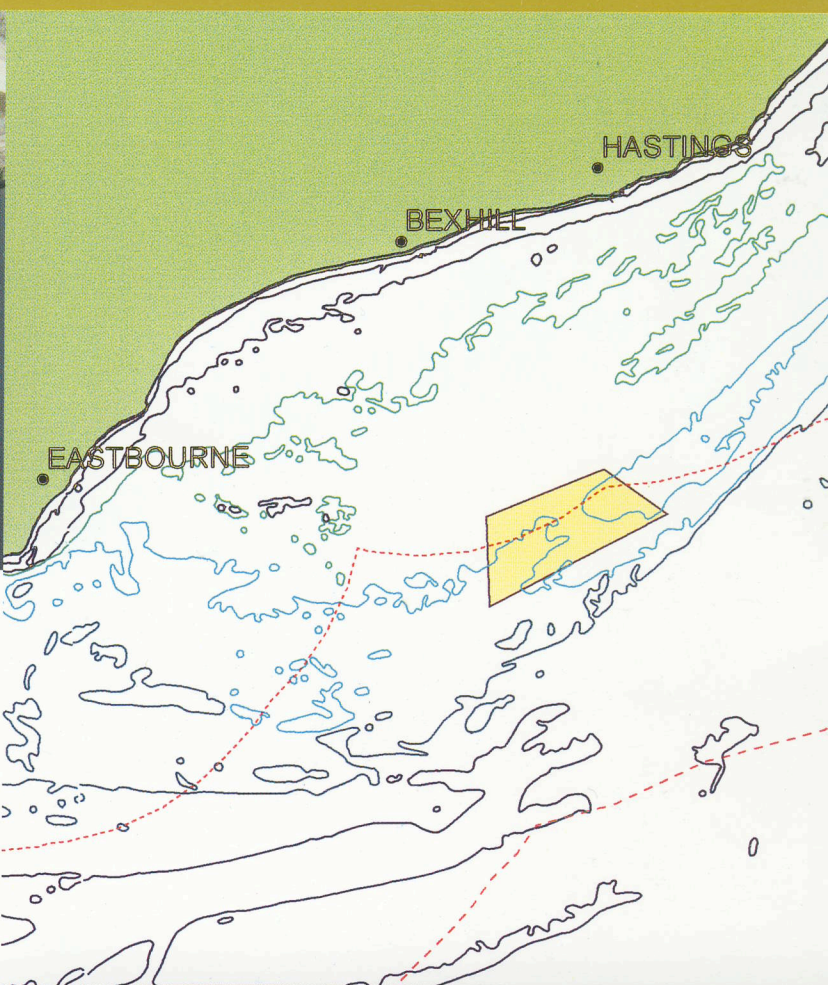


MARINE AGGREGATE DREDGING

THE AREA INVOLVED - 3rd ANNUAL REPORT



EMS Key

- + Pumps Running Only
- + Dredging
- ~ Dredging Zones
- Licensed Area



“Committed to environmental performance”

The area of seabed licensed is often considered to represent the overall impact that the marine aggregates industry is having upon both the marine environment and other sea-users. In fact the area dredged by the industry only represents a very small proportion of the total area licensed – with 90% of dredging taking place from an even smaller area.

Dredged area is partially limited by zoning initiatives, either required as part of the conditions attached to the Government Permission, or introduced voluntarily by the licensee.

In addition, accurate navigation systems on board vessels permit dredging activity to be effectively managed to take account of:

- Extent/orientation of resource
- Need for product consistency
- Operational limitations
- Effective resource management.

These factors result in intensive dredging activity over a small proportion of the total area licensed, as reflected in the intensity plots derived from EMS records.

Licensed area v. Dredged area;

Licence conditions coupled with sound management of the resource by operators limit the extent of dredging in a licensed area in any given year.

Dredging intensity;

The marine aggregates industry tightly controls dredging activity to ensure the most effective management of marine sand and gravel resources. This is reflected by the limited area in which 90% of dredging takes place.



New licence areas are necessary to secure the long-term future of the marine aggregates industry. Their release is controlled by the comprehensive and detailed Government Permission.

The area of seabed dredged will continue to be minimised, and any changes to the overall licensed area should not effect the area actually dredged. An increase in licence area will not represent a reduction in environmental performance.

It is the area of seabed dredged that reflects the significance of aggregate extraction to the marine environment and other sea-users. The area dredged statistics over the last three years, demonstrate a commitment to minimising impact, and continual improvement.

Area available to be dredged;

The area available to be dredged is limited by formal zoning requirements and also by voluntary zoning initiatives introduced by the industry. This restricts the maximum area that can be dredged at any one time.

Sound resource management;

The industry is committed to sound and responsible resource management. This will ensure that the area of seabed dredged is minimised through efficient and controlled dredging operations.

Area of seabed dredged (km²) in 2000

Year	1998	1999	2000	Change 99/00	% change
0-6 mile	136	112	88	-24	-21
6-12 mile	96	94	71	-23	-24
Beyond 12 mile	26	32	20	-12	-38
Total	258	238	179	-59	-25

“Responsible mineral management”

Stewardship is fundamental to the management of every aspect of the Crown Estate. The requirement for, and commitments to good stewardship inform all their business strategies, management systems and individual developments.

All seabed use around the UK must now be managed against the most comprehensive environmental controls ever.

Through the use of technology such as an offshore Geographic Information System and the Electronic Monitoring System on dredging vessels the Crown Estate are meeting this challenge for marine aggregate extraction.



Improving access to information on the marine environment has been a major and increasing theme for the Marine Estate in recent years. The data set for the year 2000 represents the most detailed and comprehensive analysis of the area of seabed dredged so far.

Analysis of EMS data;

All EMS data is analysed on a monthly basis to ensure licence conditions are being met. During 2000, over 30,000 hours of dredging were logged.

Electronic Monitoring System;

Every vessel dredging a Crown Estate licence must have an approved 'black box' Electronic Monitoring System (EMS) installed and operational, 24 hours a day, 365 days a year.

Continual development;

By using a powerful Geographical Information System (GIS), detailed analysis of dredging activity is possible. Improved analysis will allow the resolution of dredging intensity to increase by fourfold.

Sound estate management;

Through continual monitoring and reporting, the Crown Estate is able to demonstrate its commitment to transparent and responsible management.

Area of seabed licensed (km²) in 2000

Year	01/01/98	01/01/99	01/01/00	01/01/01	Change 00/01	% Change
0-6 mile	875	704	695	663	-32	-5
6-12 mile	514	504	420	454	34	8
Beyond 12 mile	273	259	256	389	133	52
Total	1662	1467	1371	1506	135	10

Background

Dredging offshore for aggregates began in the early Twentieth Century but it did not reach a significant scale until the 1970s, as markets for marine aggregates expanded and dredging technology improved. Almost all marine aggregate extraction takes place from licences on seabed owned by the Crown Estate. Planning permission is granted by the Department of the Environment, Transport and the Regions or the National Assembly for Wales/Scottish Office under the "Government Permission". The Crown Estate will only grant a licence following a favourable Government Permission.

The Crown Estate

The Crown Estate is a landed estate including more than 120,000 hectares of agricultural land in England, Scotland and Wales, substantial blocks of commercial property (primarily in London) and an extensive marine estate covering 55% of the foreshore and all of the seabed out to the 12 mile territorial limit. Its origins date back to the reign of King Edward the Confessor. The Crown Estate is part of the hereditary possessions of the Sovereign "in right of the Crown" managed under the provisions of the Crown Estate Act 1961 by the Crown Estate Commissioners who have a duty to maintain and enhance the value of the Estate and the income derived from it. The net revenue surplus is paid to the Exchequer.

BMAPA

The British Marine Aggregate Producers Association (BMAPA) was formed in 1992 and comprises members of the Quarry Products Association with a marine interest. Marine sand and gravel is supplied to home markets, as well as contributing to the balance of payments through exports to Continental Europe. In addition, marine aggregates are fulfilling an increasingly important role by supporting beach replenishment schemes. The marine aggregates industry operates over 30 vessels on 74 production licences around the UK. The vessels are almost entirely British registered and carry British crew.

BMAPA membership is comprised of: Britannia Aggregates Ltd, British Dredging Ltd, Hanson Aggregates Marine Ltd, Kendall Bros. (Portsmouth) Ltd, Northwood (Fareham) Ltd, Norwest Sand and Ballast Company, South Coast Shipping Company Ltd, and United Marine Dredging Ltd.



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