

# The area involved – 11th annual report



MARINE AGGREGATE DREDGING 2008





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# An industry committed to responsible management through continual development

**In March 1999, The Crown Estate and the British Marine Aggregate Producers Association (BMAPA) issued a statement of intent committing to reviewing all dredging licences over a rolling five-year period. Included was a commitment to surrender areas no longer containing useful resources of sand and gravel and to publish an annual report detailing the extent of dredging within the licensed areas.**

This year's report is the eleventh in an ongoing series. Its content reflects the continued commitment to this initiative by both The Crown Estate and the members of BMAPA.

This report contains summary information relating to The Crown Estate area of seabed licensed, dredged and surrendered during 2008, based on data from its Offshore Marine GIS and from analysis of dredger Electronic Monitoring System records.

Information on dredged area and intensity has been derived from variable grid analysis.

A set of regional charts has been prepared to show the extent and intensity of dredging operations. Additional facts and figures on marine aggregate dredging activity by region are also presented.

The figures for the active dredge area – the area actually available to be dredged at any one time – have been updated for 2008. While the limits of these areas are not presented on the charts associated with this report, detailed regional zoning plans (updated on a bi-annual basis) are available from either The Crown Estate or BMAPA websites, or by contacting the addresses on the reverse of this report.



## Summary information

- A total of 21.24 million tonnes of sand and gravel were dredged from Crown Estate licences in England and Wales during 2008 (23.09 million tonnes in 2007)
- The total area of seabed licensed in 2008 decreased to 1,278km<sup>2</sup> (1,344km<sup>2</sup> in 2007)
- Dredging took place within 137.9km<sup>2</sup>, 10.8 per cent of the licensed area, compared to 134.7km<sup>2</sup> (10.0 per cent) in 2007
- The area of seabed dredged for more than 1 hr 15 minutes per year (high intensity – red on charts) decreased to 9.28km<sup>2</sup> (10.16km<sup>2</sup> in 2007)
- 90 per cent of dredging from Crown Estate licences took place from an area of 48.22km<sup>2</sup> (49.95km<sup>2</sup> in 2007).







## Summary statistics for 2008

Region	Total area licensed during 2008 (km <sup>2</sup> )	Total active dredge area <sup>*1</sup> for 2008 (km <sup>2</sup> )	Total area dredged during 2008 (km <sup>2</sup> )
Humber	454.62	143.91	24.03
East Coast	268.00	153.94	48.90
Thames Estuary	52.99	76.62	17.65
East English Channel	107.96	30.85	9.83
South Coast	210.33	89.25	26.25
South West	129.22	55.78	10.61
North West	54.95	19.96	0.65
<b>Total (km<sup>2</sup>)</b>	<b>1,278.07</b>	<b>570.31</b>	<b>137.92</b>

<sup>\*1</sup> Total area actually available to be dredged during 2008, calculated on a cumulative basis

## Area of seabed licensed decreased by 66km<sup>2</sup> during 2008

Area of seabed licensed (km<sup>2</sup>), 2004-2008

Year <sup>*2</sup>	2004	2005	2006	2007	2008
0-6nm <sup>*3</sup>	443	385	428	431	384
6-12nm <sup>*3</sup>	469	449	493	492	458
>12nm <sup>*3</sup>	345	345	395	421	436
<b>Total area licensed (km<sup>2</sup>)</b>	<b>1,257</b>	<b>1,179</b>	<b>1,316</b>	<b>1,344</b>	<b>1,278</b>
<b>Total active dredge area (km<sup>2</sup>)</b>	<b>780</b>	<b>596</b>	<b>576</b>	<b>556</b>	<b>570</b>

<sup>\*2</sup> Annual figures are calculated as of end of the 31st December, and therefore incorporate any changes that may have occurred through the year

<sup>\*3</sup> Based on a standardised 6 and 12nm (UKHO 01/01/05) to allow for accurate comparison between years

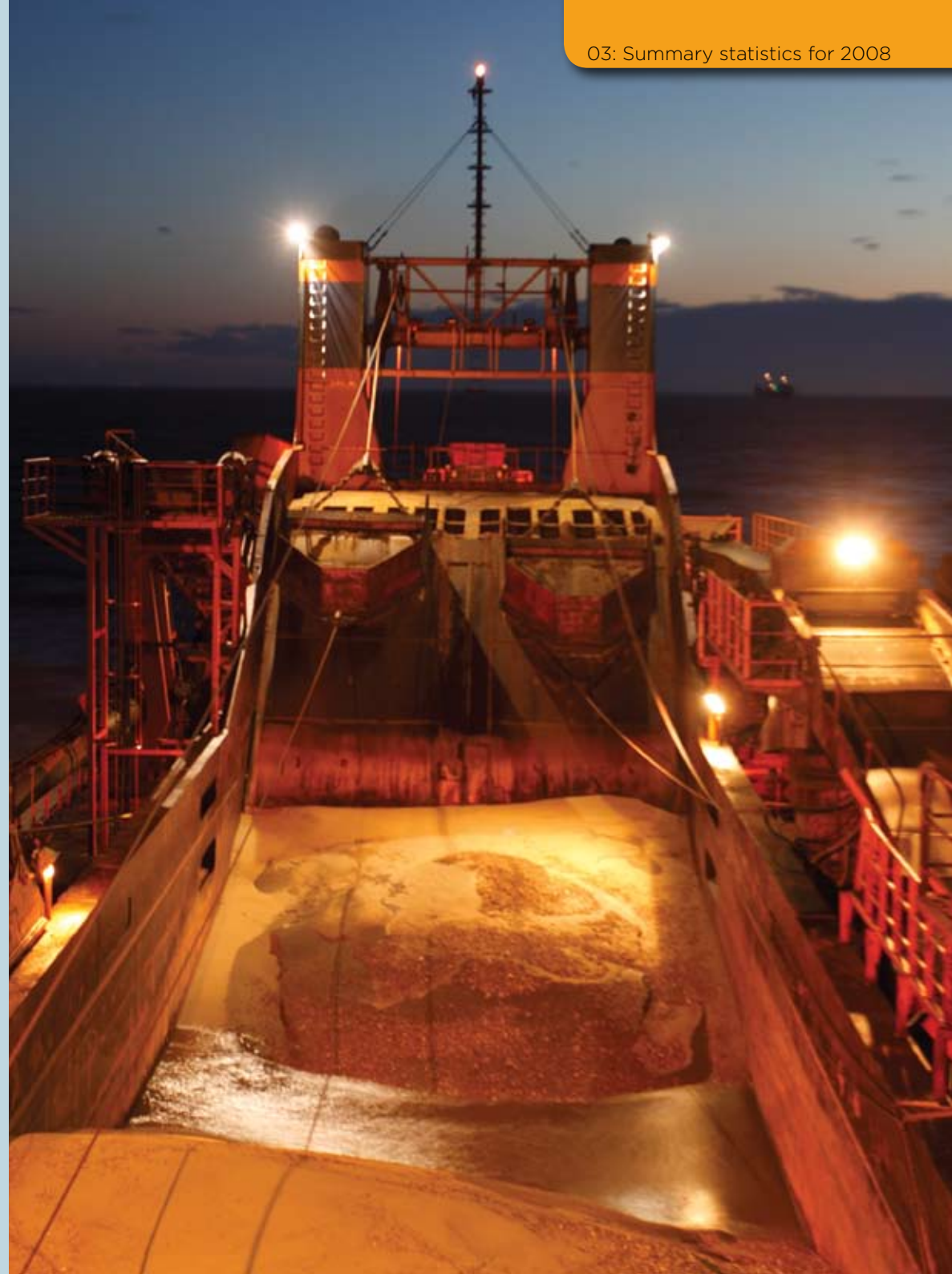
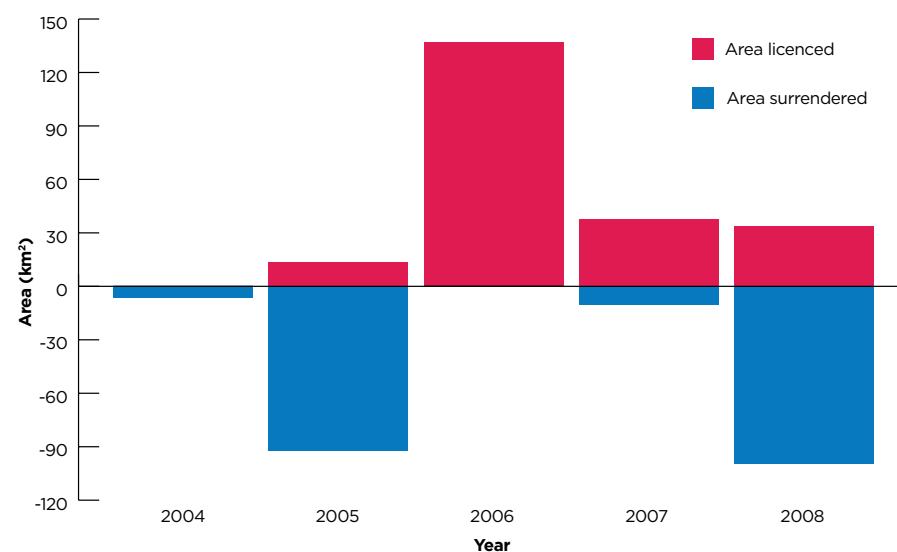
## Area of seabed dredged increased by 3km<sup>2</sup> during 2008

Area of seabed dredged (km<sup>2</sup>), 2004-2008 (from EMS variable grid analysis)

Year	2004	2005	2006	2007	2008
0-6nm <sup>*3</sup>	71	67	73	67	71
6-12nm <sup>*3</sup>	43	43	44	43	41
>12nm <sup>*3</sup>	20	28	24	25	26
<b>Total (km<sup>2</sup>)</b>	<b>134</b>	<b>138</b>	<b>141</b>	<b>135</b>	<b>138</b>
<b>Area dredged &gt;1 hr 15 mins (km<sup>2</sup>)</b>	<b>10.18</b>	<b>9.50</b>	<b>8.66</b>	<b>10.16</b>	<b>9.28</b>
<b>90 per cent of dredging (area in km<sup>2</sup>)</b>	<b>42.67</b>	<b>45.42</b>	<b>49.19</b>	<b>49.95</b>	<b>48.22</b>

\*3 Based on a standardised 6 and 12nm (UKHO 01/01/05) to allow for accurate comparison between years

## New area licensed versus existing area surrendered 2004-2008



## Humber region

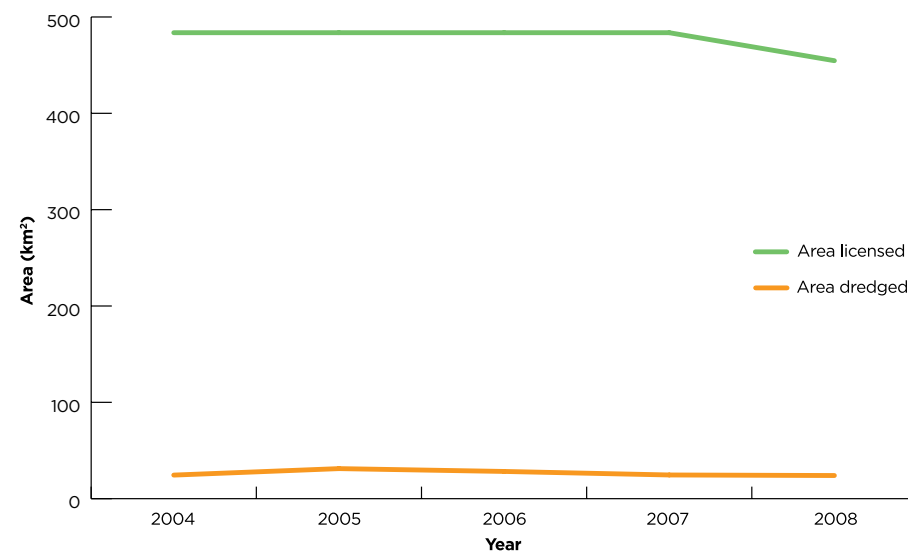
### Background

- The Humber region has seven production licences operated by British Dredging Ltd, Hanson Aggregates Marine Ltd, United Marine Dredging Ltd and Westminster Gravels Ltd for both sand and gravel, principally for use in the construction industry
- During 2008, 3.15 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 4.40 million. In addition, 0.45 million tonnes were specifically dredged for beach nourishment schemes
- Of the total marine aggregate dredged for construction from the Humber region, 1.02 million tonnes were landed at wharves in the North East, located on the Tyne, Tees and Humber rivers. Some 0.10 million tonnes were landed elsewhere in England, and 2.03 million tonnes were landed at wharves in mainland Europe.

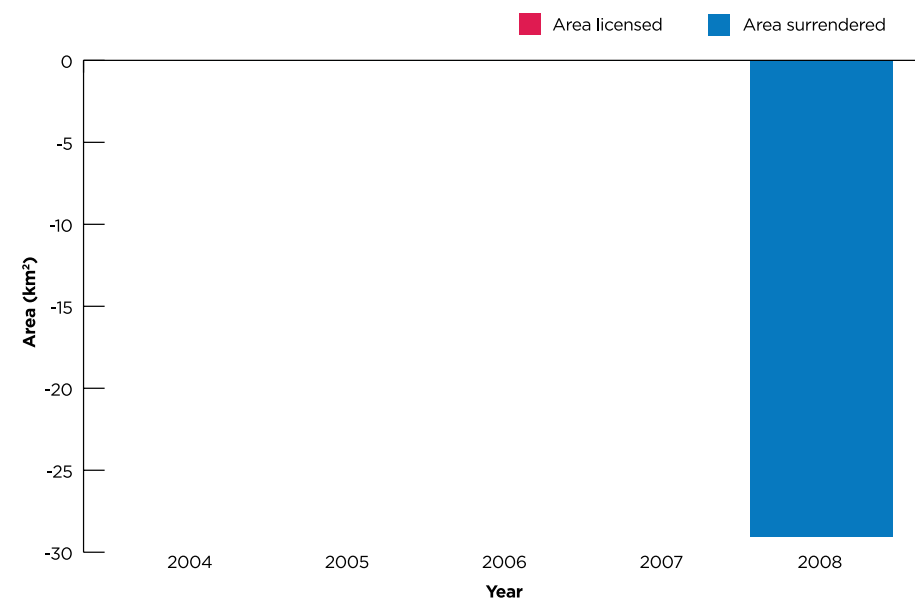
### Regional statistics

- The licensed area in the Humber region was 454.62km<sup>2</sup>
- The total area actually available to be dredged within the Humber region during 2008 was 143.91km<sup>2</sup>
- Dredging took place within 24.03 km<sup>2</sup>, 5.29 per cent of the licensed area
- High-intensity dredging (greater than 1 hour 15 minutes) is equal to 1.27km<sup>2</sup>, representing 46.13 per cent of regional dredging activity
- Ninety per cent of regional dredging effort took place from 9.00km<sup>2</sup>
- During 2008, the area licensed for marine aggregate extraction decreased by 29.06km<sup>2</sup>.

### Area of seabed licensed and dredged



### Area of seabed licensed and surrendered







## East Coast region

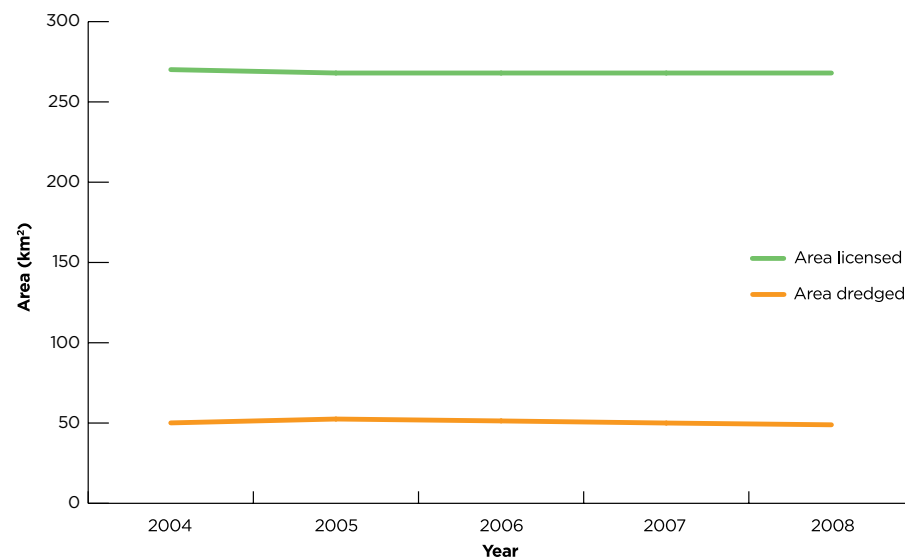
### Background

- The East Coast region has 14 production licences operated by British Dredging Ltd, CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd, United Marine Dredging Ltd and Volker Dredging Ltd for both sand and gravel, principally for use in the construction industry
- During 2008, 6.08 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 10.85 million. Some 0.68 million tonnes were specifically dredged for beach nourishment schemes
- Of the total marine aggregate dredged from the East Coast region, 0.02 million tonnes were landed at wharves on the East Coast. 3.37 million tonnes were landed at wharves along the Thames and Medway rivers. Some 0.10 million tonnes were landed at wharves elsewhere in England. A further 2.59 million tonnes were landed at wharves in mainland Europe.

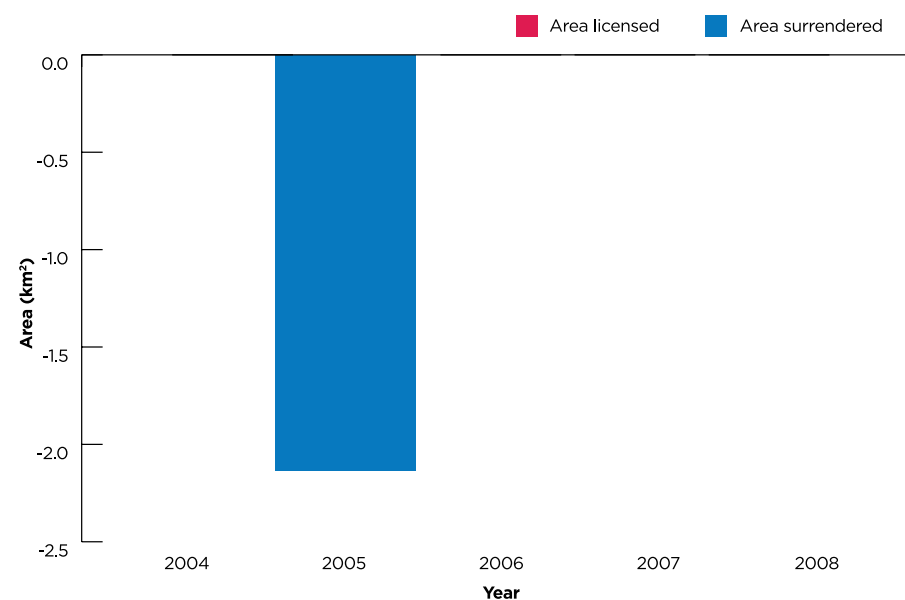
### Regional statistics

- The licensed area in the East Coast region was 268.00km<sup>2</sup>
- The total area actually available to be dredged within the East Coast region during 2008 was 153.94km<sup>2</sup>
- Dredging took place within 48.90km<sup>2</sup>, 18.25 per cent of the licensed area
- High-intensity dredging (greater than 1 hour 15 minutes) is equal to 2.31km<sup>2</sup>, representing 49.40 per cent of regional dredging activity
- Ninety per cent of regional dredging effort took place from 18.97km<sup>2</sup>
- During 2008, the area licensed for marine aggregate extraction remained unchanged.

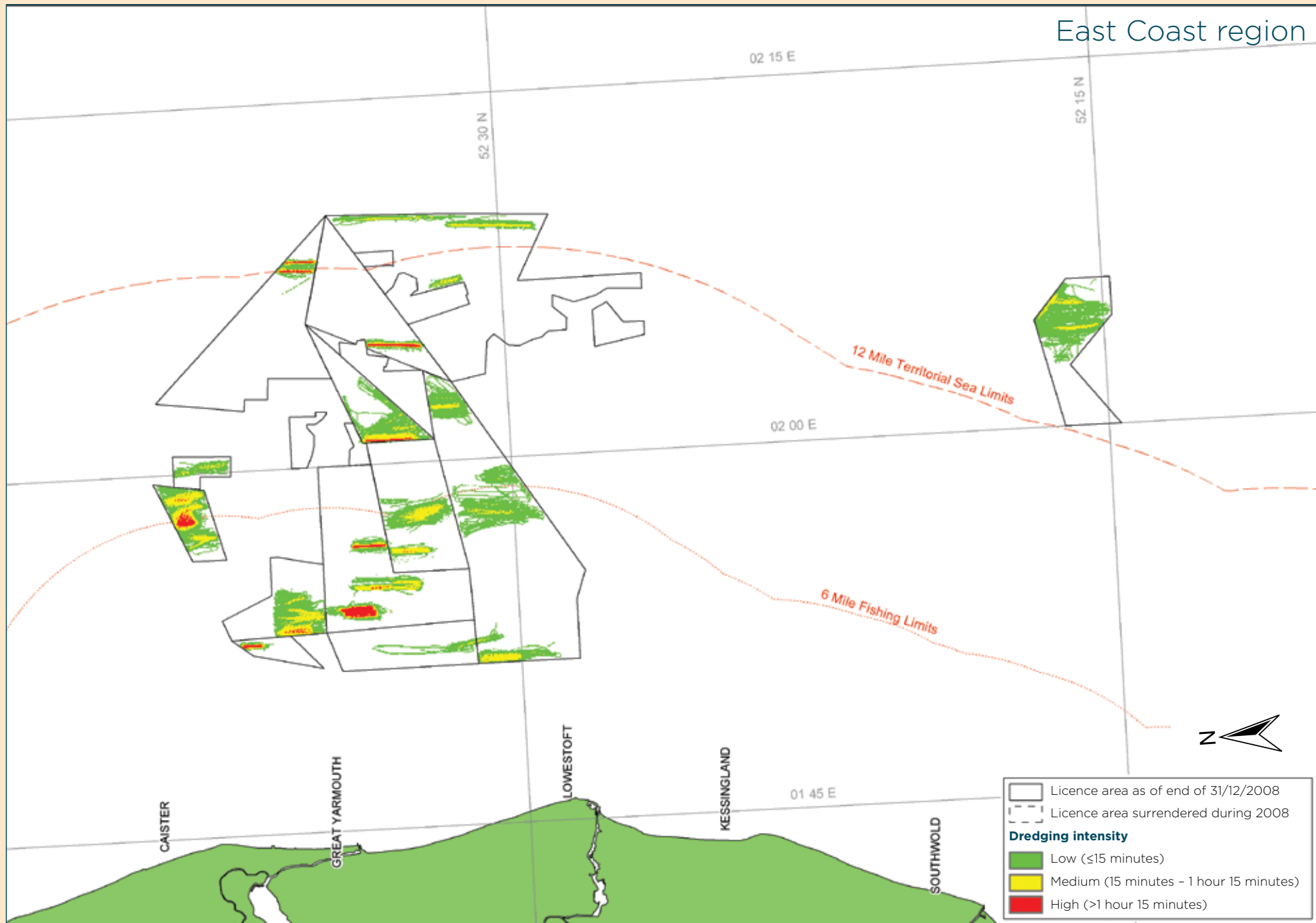
### Area of seabed licensed and dredged



### Area of seabed licensed and surrendered







## Thames Estuary region

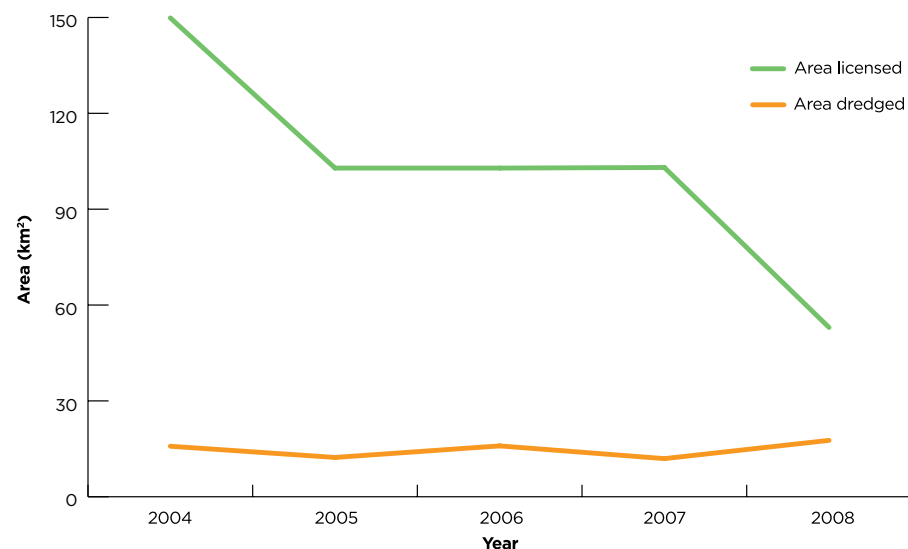
### Background

- The Thames region has five production licences operated by Britannia Aggregates Ltd, CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd, and United Marine Dredging Ltd for both sand and gravel, principally for use in the construction industry
- During 2008, 1.73 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 3.90 million. Some 0.65 million tonnes were specifically dredged for beach nourishment schemes
- Of the total marine aggregate dredged from the Thames region, 1.46 million tonnes were landed at wharves along the Thames and Medway rivers. Some 0.07 million tonnes were landed at wharves elsewhere in England. A further 0.20 million tonnes were landed at wharves in mainland Europe.

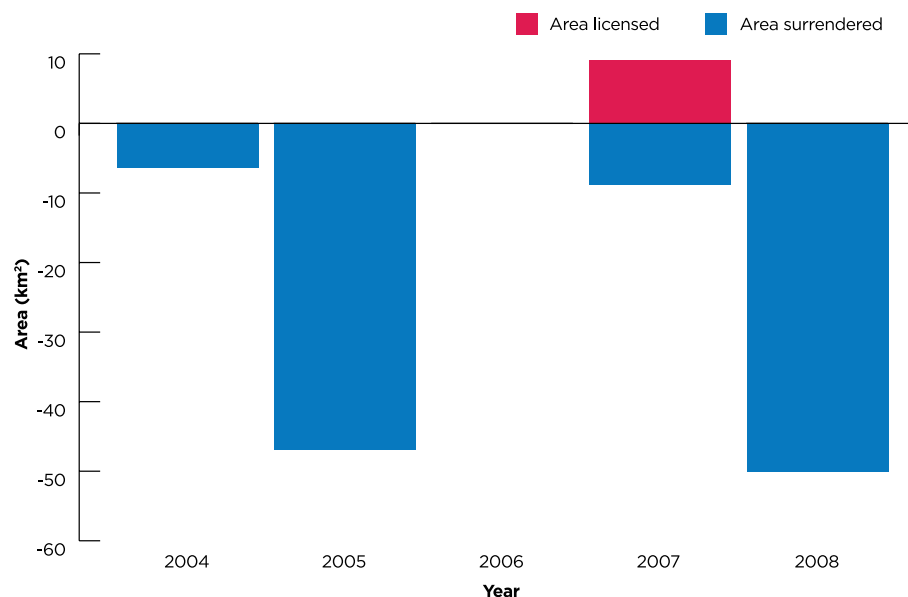
### Regional statistics

- The licensed area in the Thames region was 52.99km<sup>2</sup>
- The total area actually available to be dredged within the Thames region during 2008 was 76.62km<sup>2</sup> (measured as a total maximum extent, and therefore greater than the area licensed figure due to the surrender of several licences at the end of the year)
- Dredging took place within 17.65km<sup>2</sup>, 33.31 per cent of the licensed area
- High-intensity dredging (greater than 1 hour 15 minutes) is equal to 0.57km<sup>2</sup>, representing 29.18 per cent of regional activity
- Ninety per cent of regional dredging effort took place from 6.53km<sup>2</sup>
- During 2008, the area licensed for marine aggregate extraction decreased by 50.06 km<sup>2</sup>.

### Area of seabed licensed and dredged



### Area of seabed licensed and surrendered







## East English Channel region

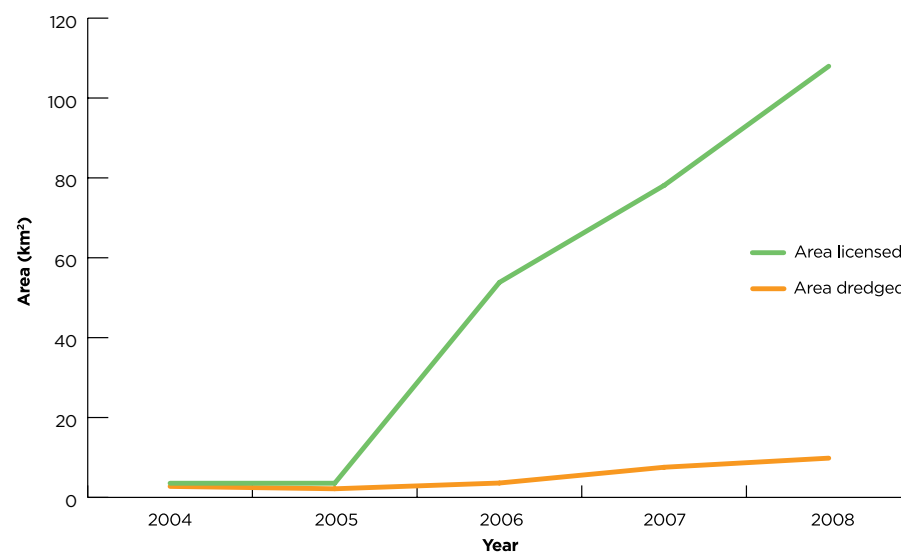
### Background

- The East English Channel region has 11 production licences operated by British Dredging Ltd, CEMEX UK Marine Ltd, DEMA Building Materials Ltd, Hanson Aggregates Marine Ltd, United Marine Dredging Ltd and Volker Dredging Ltd for sand and gravel, principally for use in the construction industry
- During 2008, 2.44 million tonnes of aggregate were dredged from a permitted licensed tonnage of 9.69 million
- Of the total marine aggregate dredged from the East English Channel region, 0.14 million tonnes were landed at wharves in the East English Channel, and 1.32 million tonnes were landed at wharves along the Thames and Medway rivers. Some 0.04 million tonnes were landed at wharves elsewhere in England and a further 0.94 million tonnes were landed at wharves in mainland Europe.

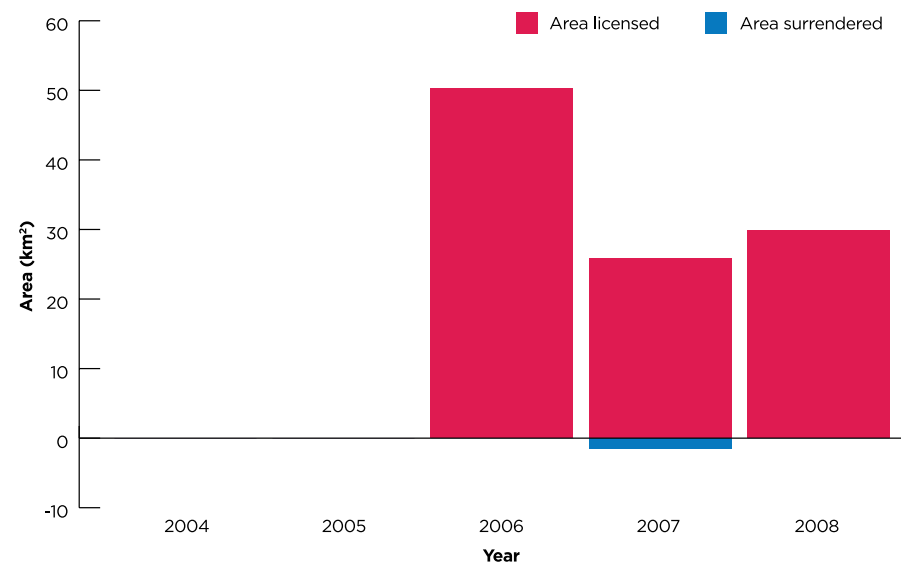
### Regional statistics

- The licensed area in the East English Channel region was 107.96km<sup>2</sup>
- The total area actually available to be dredged within the East English Channel region during 2008 was 30.85km<sup>2</sup>
- Dredging took place within 9.83km<sup>2</sup>, 9.11 per cent of the licensed area
- High-intensity dredging (greater than 1 hour 15 minutes) is equal to 1.15km<sup>2</sup>, representing 71.76 per cent of regional activity
- Ninety per cent of regional dredging effort took place from 2.39km<sup>2</sup>
- During 2008, the area licensed for marine aggregate extraction increased by 29.85km<sup>2</sup>.

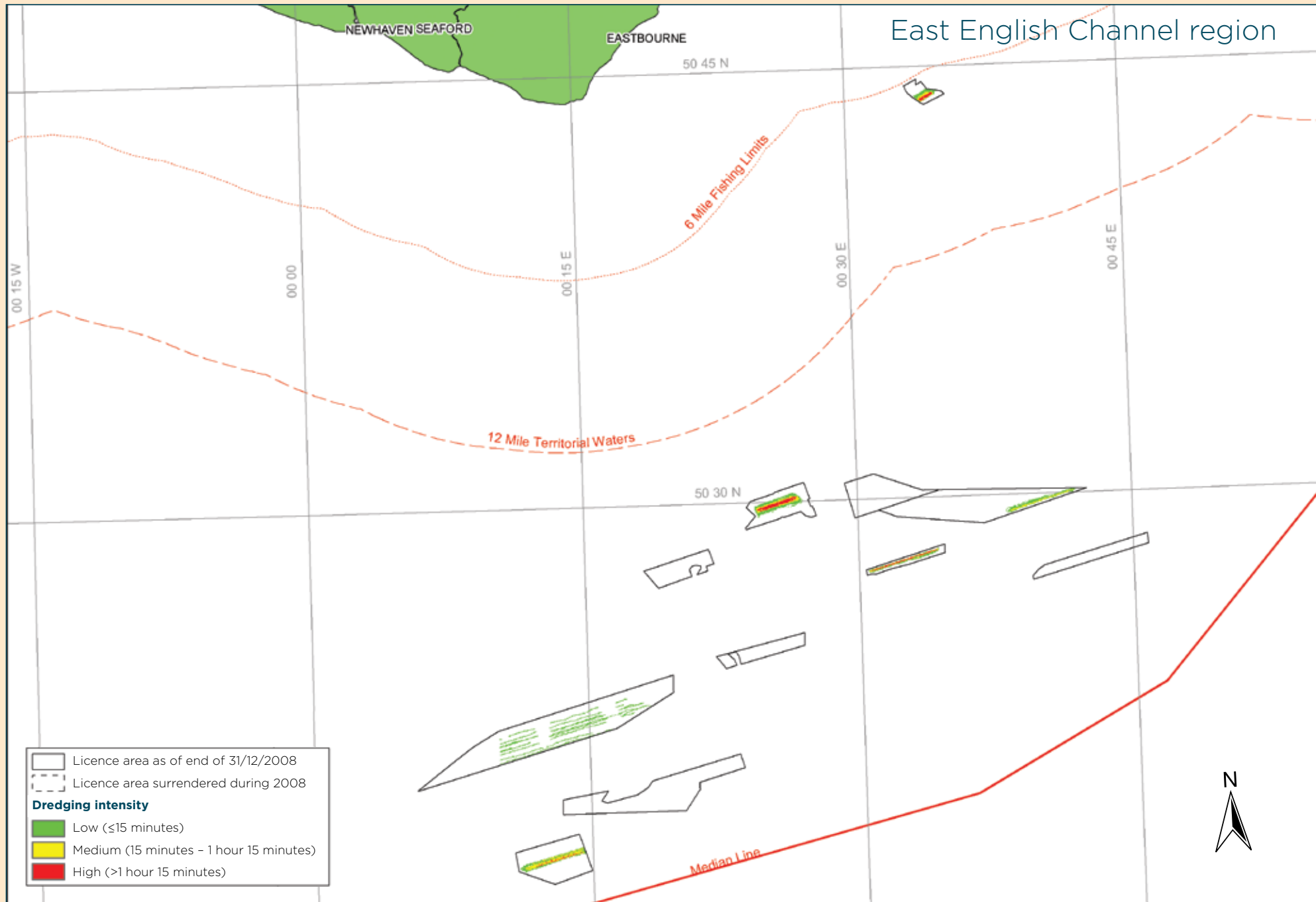
### Area of seabed licensed and dredged



### Area of seabed licensed and surrendered







## South Coast region

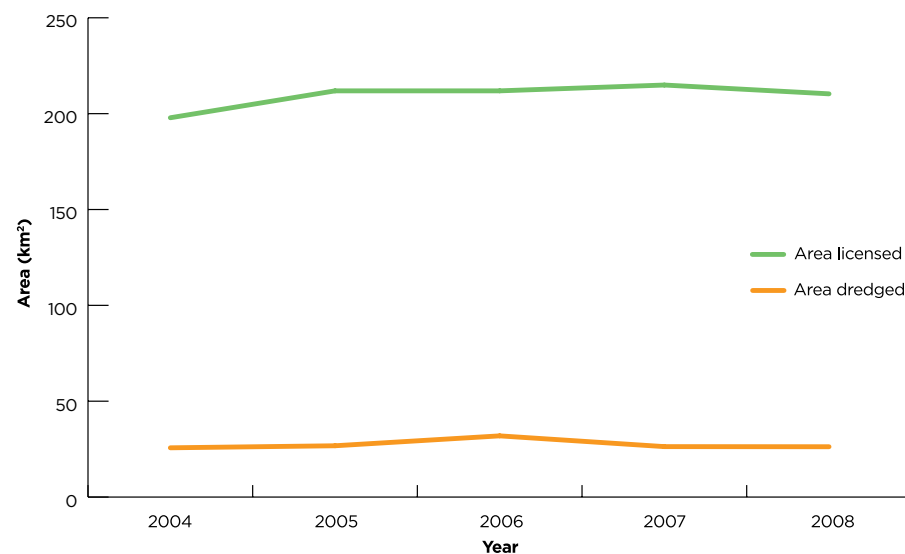
### Background

- The South Coast region has 19 production licences operated by CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd, Kendall Bros (Portsmouth) Ltd, Northwood (Fareham) Ltd, United Marine Dredging Ltd, Volker Dredging Ltd and Westminster Gravels Ltd for sand and gravel, principally for use in the construction industry
- During 2008, 3.93 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 10.65 million. In addition, 0.22 million tonnes were specifically dredged for beach nourishment schemes
- Of the total marine aggregate dredged for construction from the South Coast region, 2.35 million tonnes were landed at wharves along the South Coast, and 1.14 million tonnes were landed elsewhere in England. Some 0.44 million tonnes were also landed at wharves in mainland Europe.

### Regional statistics

- The licensed area in the South Coast region was 210.33km<sup>2</sup>
- The total area actually available to be dredged within the South Coast region during 2008 was 89.25km<sup>2</sup>
- Dredging took place from within 26.25km<sup>2</sup>, 12.48 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 2.44km<sup>2</sup>, representing 56.07 per cent of regional dredging activity
- Ninety per cent of regional dredging effort took place from 9.65km<sup>2</sup>
- During 2008, the area licensed for marine aggregate extraction decreased by 4.6km<sup>2</sup>.

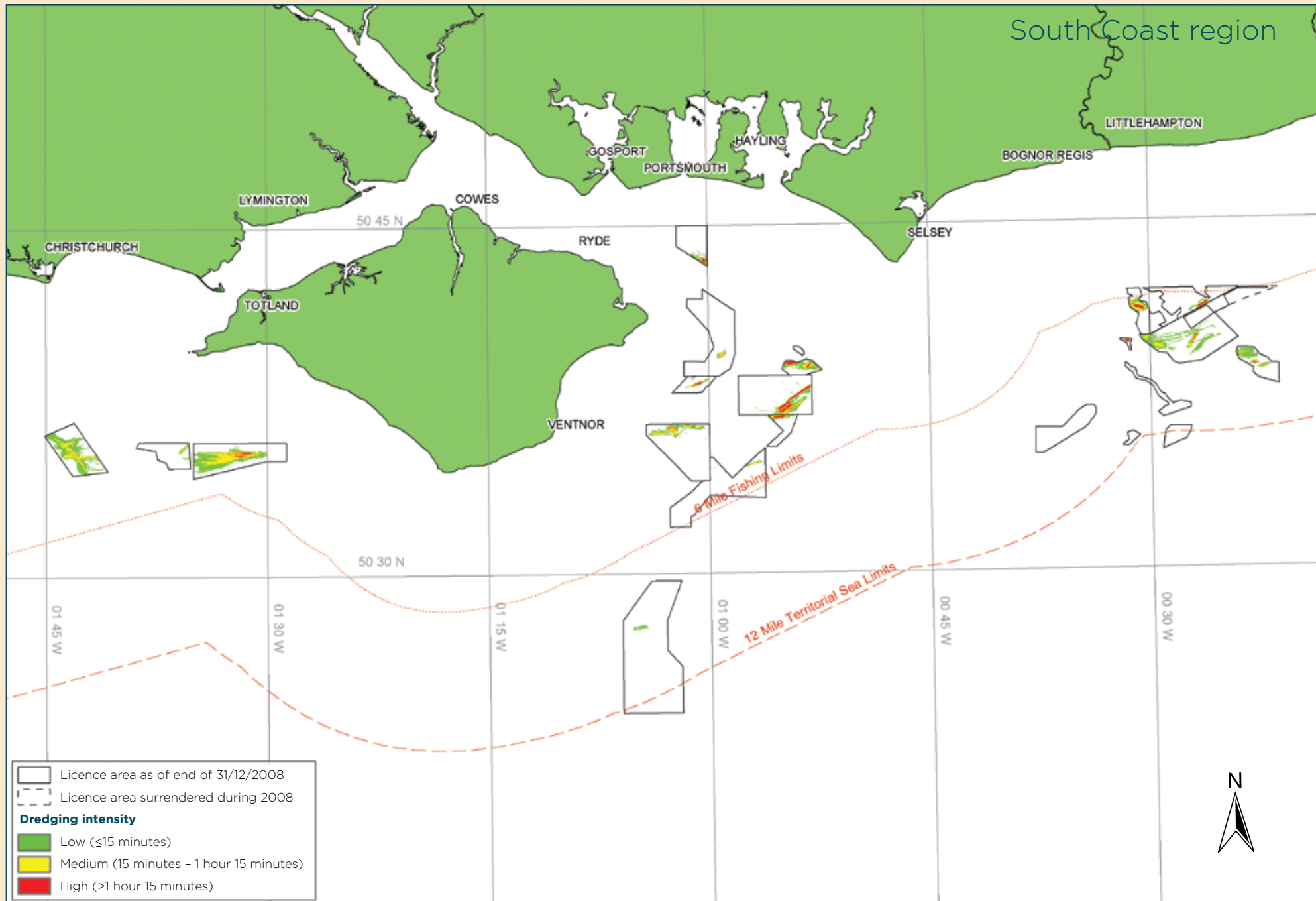
### Area of seabed licensed and dredged



### Area of seabed licensed and surrendered







## South West region

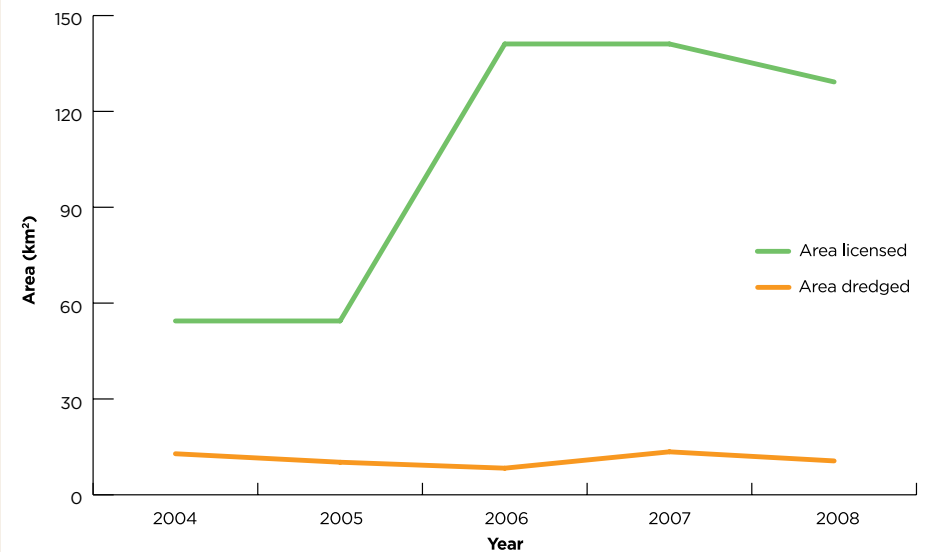
### Background

- The South West region has 13 production licences operated by British Dredging Ltd, CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd, Llanelli Sand Dredging Ltd and United Marine Dredging Ltd for sand, principally for use in the construction industry
- During 2008, 1.47 million tonnes of aggregate were dredged from a permitted licensed tonnage of 3.45 million
- Of the aggregate dredged in the South West region, only approximately 4,000 tonnes were landed in wharves outside the region. Some 0.64 million tonnes were landed at English wharves and 0.83 million tonnes were landed at Welsh wharves.

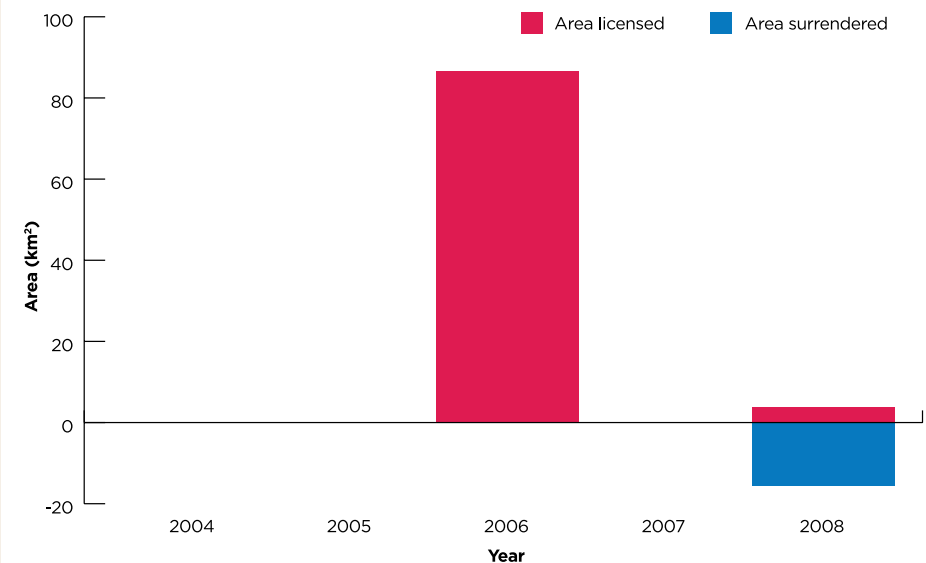
### Regional statistics

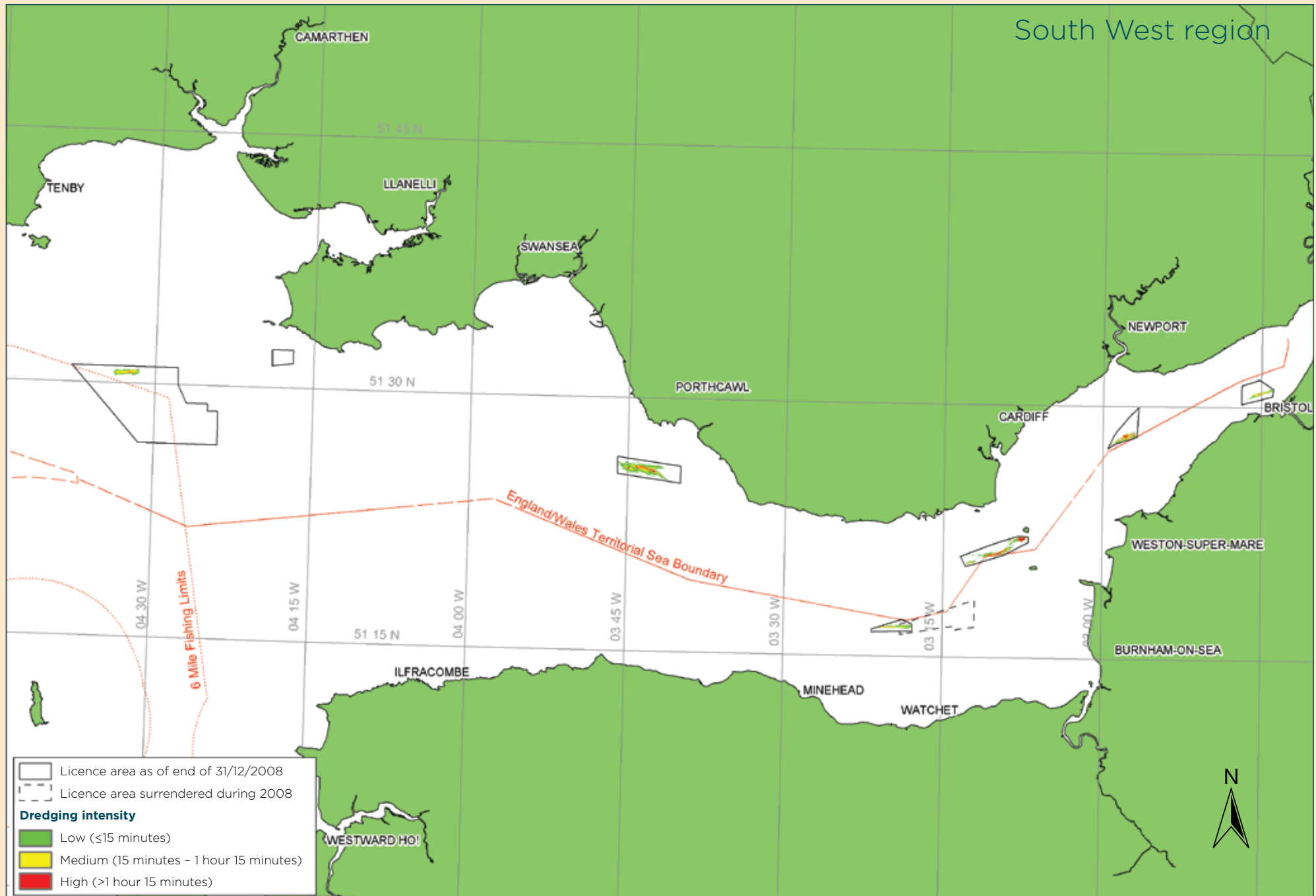
- The licensed area in the South West region was 129.22km<sup>2</sup>
- The total area actually available to be dredged within the South West region during 2008 was 55.78km<sup>2</sup>
- Dredging took place from within 10.61km<sup>2</sup>, 8.21 per cent of the licensed area
- High-intensity dredging (greater than 1 hour 15 minutes) is equal to 1.24km<sup>2</sup>, representing 65.75 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place from 3.53km<sup>2</sup>
- During 2008, the area licensed for marine aggregate extraction decreased by 11.89km<sup>2</sup>.

### Area of seabed licensed and dredged



### Area of seabed licensed and surrendered







## North West region

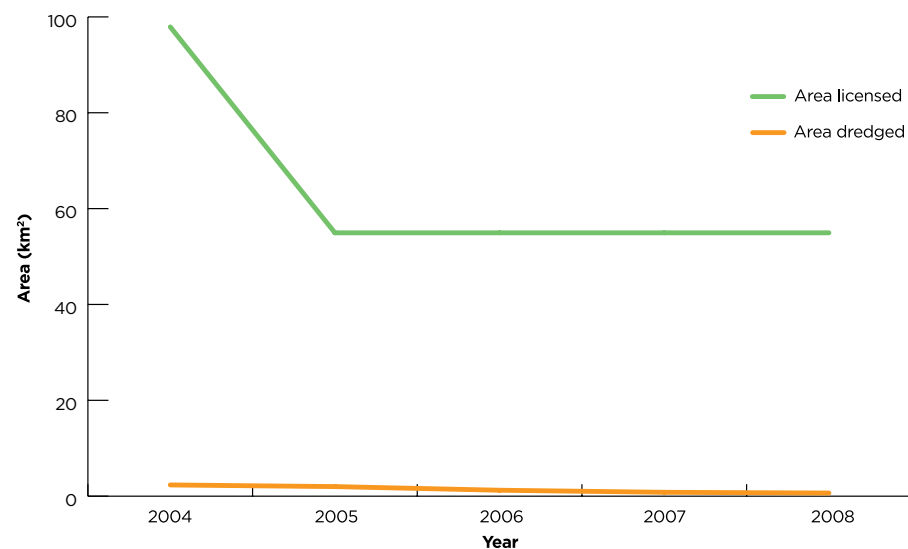
### Background

- The North West region has six production licences operated by CEMEX UK Materials Ltd, Norwest Sand and Ballast Co. and United Marine Dredging Ltd for sand, principally for use in the construction industry
- During 2008, 0.43 million tonnes of aggregate were dredged from a permitted tonnage of 1.38 million
- Of the aggregate dredged in the North West region, 0.36 million tonnes were landed at wharves in North West England, and 0.05 million tonnes were landed at wharves in North Wales. Only approximately 0.02 tonnes were landed in wharves outside of the region.

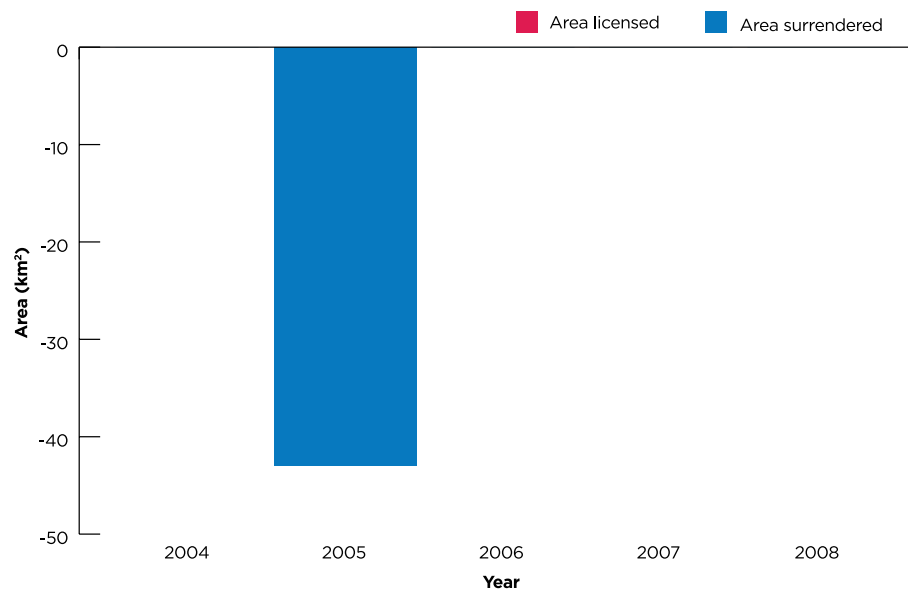
### Regional statistics

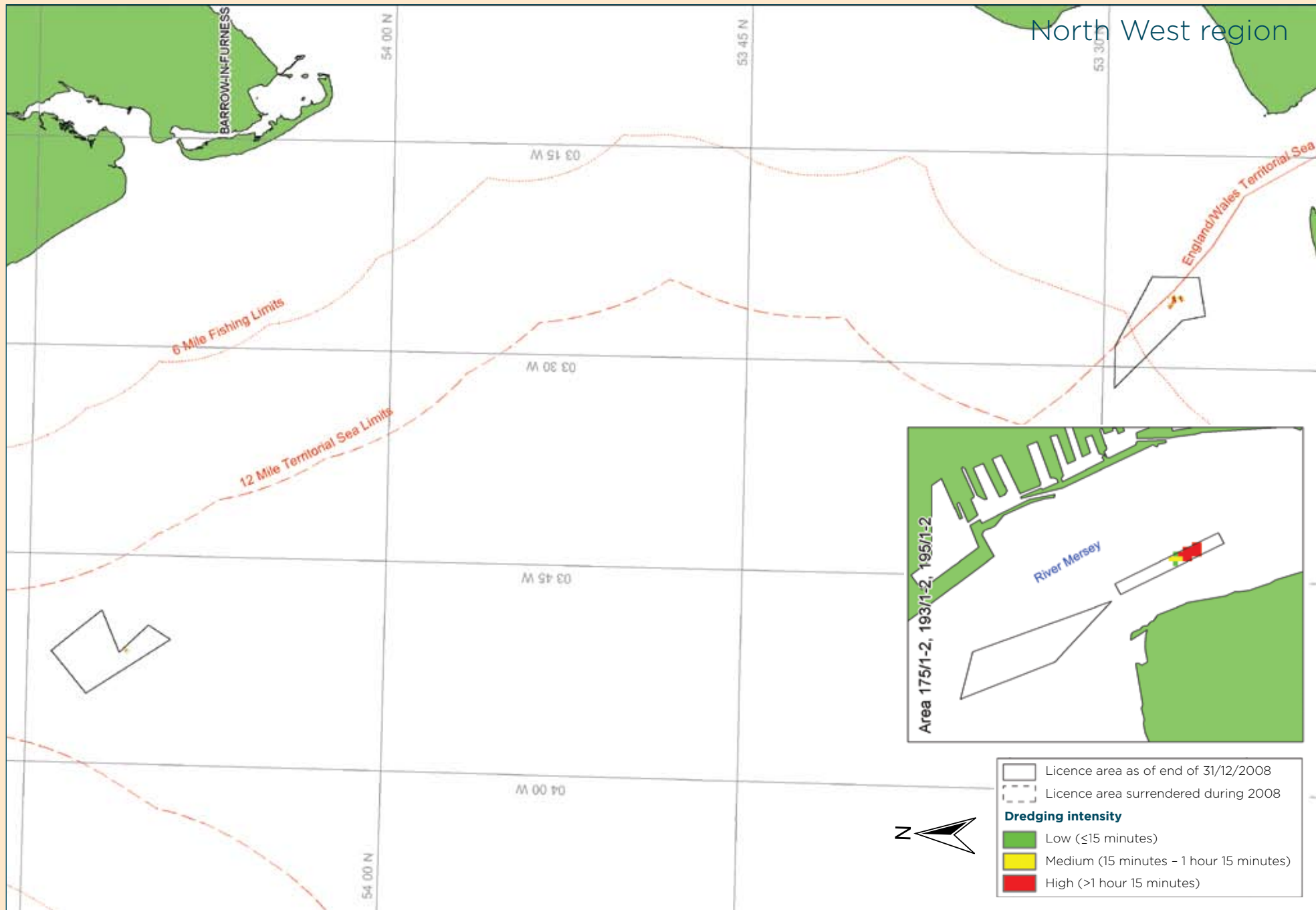
- The licensed area in the North West was 54.95km<sup>2</sup>
- The total area actually available to be dredged within the North West region during 2008 was 19.96km<sup>2</sup>
- Dredging took place from within 0.65km<sup>2</sup>, 1.18 per cent of the licensed area
- High-intensity dredging (greater than 1 hour 15 minutes) is equal to 0.30km<sup>2</sup>, representing 85.19 per cent of regional dredging activity
- Ninety per cent of regional dredging effort took place from 0.36km<sup>2</sup>
- During 2008, the area licensed for marine aggregate extraction remained unchanged.

### Area of seabed licensed and dredged



### Area of seabed licensed and surrendered





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 per cent of the foreshore and almost 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.

THE BRITISH MARINE AGGREGATE PRODUCERS ASSOCIATION (BMAPA) was formed in 1992 and comprises members of the Mineral 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 25 vessels on 70 production licences around the UK.

BMAPA membership is comprised of: Brett Group Ltd, Britannia Aggregates Ltd, CEMEX UK Marine Ltd, DEME Building Materials Ltd, Hanson Aggregates Marine Ltd, Kendall Bros. (Portsmouth) Ltd, Lafarge Aggregates Ltd, Northwood (Fareham) Ltd, Sea Aggregates Ltd, United Marine Dredging Ltd and Volker Dredging Ltd.



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