

The area involved – **15th** annual report

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MARINE AGGREGATE EXTRACTION **2012**



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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 fifteenth 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 2012 based on GIS data 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 extraction 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 2012. 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.

During the second half of 2012 dredging operators were required to be fully compliant with the new Marine Licensing regime. For those areas which were licensed prior to the mid 1990s this required the delivery of Short Term Marine Licence Applications supported by Environmental Impact Assessments to ensure the continuation of dredging operations. Among the conditions of these licences was the limitation of operations to no greater than the maximum historic dredge footprint (since 1993), resulting in a temporary reduction of the permitted extent. The large reduction in the area of seabed licenced described in this years report is largely the result of this condition being imposed on the older dredging areas, and is likely to be mostly reversed following successful applications for 15 year full term renewals during 2013 and 2014.

Summary information

- A total of 16.79 million tonnes of sand and gravel were dredged from Crown Estate licences in England and Wales during 2012 (19.12 million tonnes in 2011)
- The total area of seabed licensed in 2012 decreased to 711km² (1,274km² in 2011)
- Dredging took place within 96.72km², 13.6 per cent of the licensed area, compared with 113.84km² (8.9 per cent) in 2011
- The area of seabed dredged for more than 1 hr 15 minutes per year (high intensity – red on charts) decreased to 8.41km² (8.52km² in 2011)
- 90 per cent of dredging from Crown Estate licences took place from an area of 36.42km² (43.26km² in 2011).





Summary statistics for 2012

Region	Total area licensed during 2012 (km ²)	Total active dredge area for 2012 (km ²) ^{*1}	Total area dredged during 2012 (km ²)
Humber	194.97	109.84	19.28
East Coast	152.89	132.17	29.57
Thames	25.82	22.77	3.33
East English Channel	105.87	27.23	12.50
South Coast	49.60	54.93	23.31
South West	112.21	31.75	7.78
North West	69.34	12.31	0.95
Total (km²) ^{*2}	710.70	391.00	96.72

Area of seabed licensed decreased by 563km² during 2012^{*3}

Area of seabed licensed (km²) 2008-2012

Year ^{*4}	2008	2009	2010	2011	2012
0-6nm ^{*5}	384	376	363	346	192
6-12nm ^{*5}	458	462	447	447	191
>12nm ^{*5}	436	448	481	481	328
Total area licensed (km²)	1,278	1,286	1291	1274	711
Total active dredge area (km²)	570	536	552	567	391

Area of seabed dredged decreased by 17km² during 2012

Area of seabed dredged (km²) 2008-2012

Year	2008	2009	2010	2011	2012
0-6nm ^{*5}	71	61	44	53	42
6-12nm ^{*5}	41	37	38	36	32
>12nm ^{*5}	26	26	23	25	23
Total (km²)	138	124	105	114	97
Area dredged >1 hr 15 mins (km²)	9.28	6.83	6.83	8.52	8.41
90 per cent of dredging (area in km²)	48.22	43.45	37.63	43.26	36.42

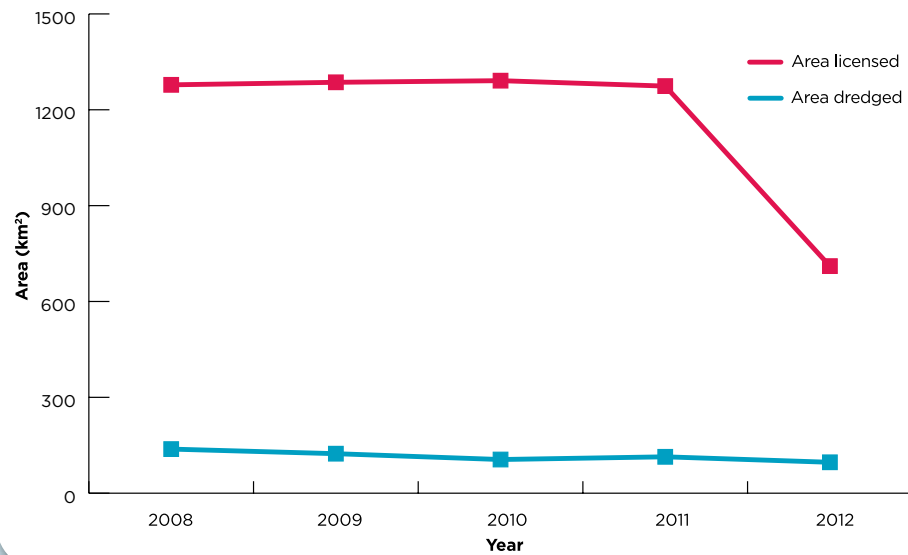
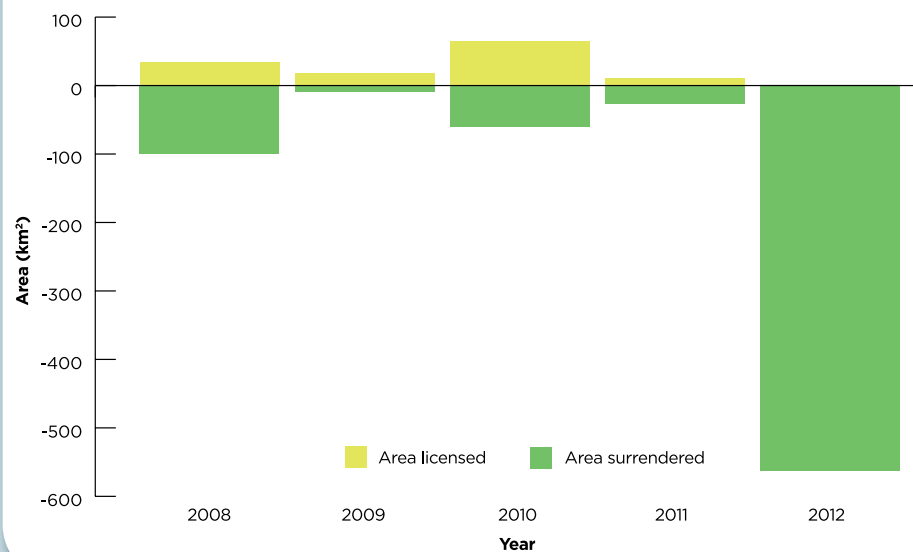
^{*1} Total area actually available to be dredged during 2012, calculated on a cumulative basis

^{*2} Totals are rounded from the correct total rather than a summation of the regional figures

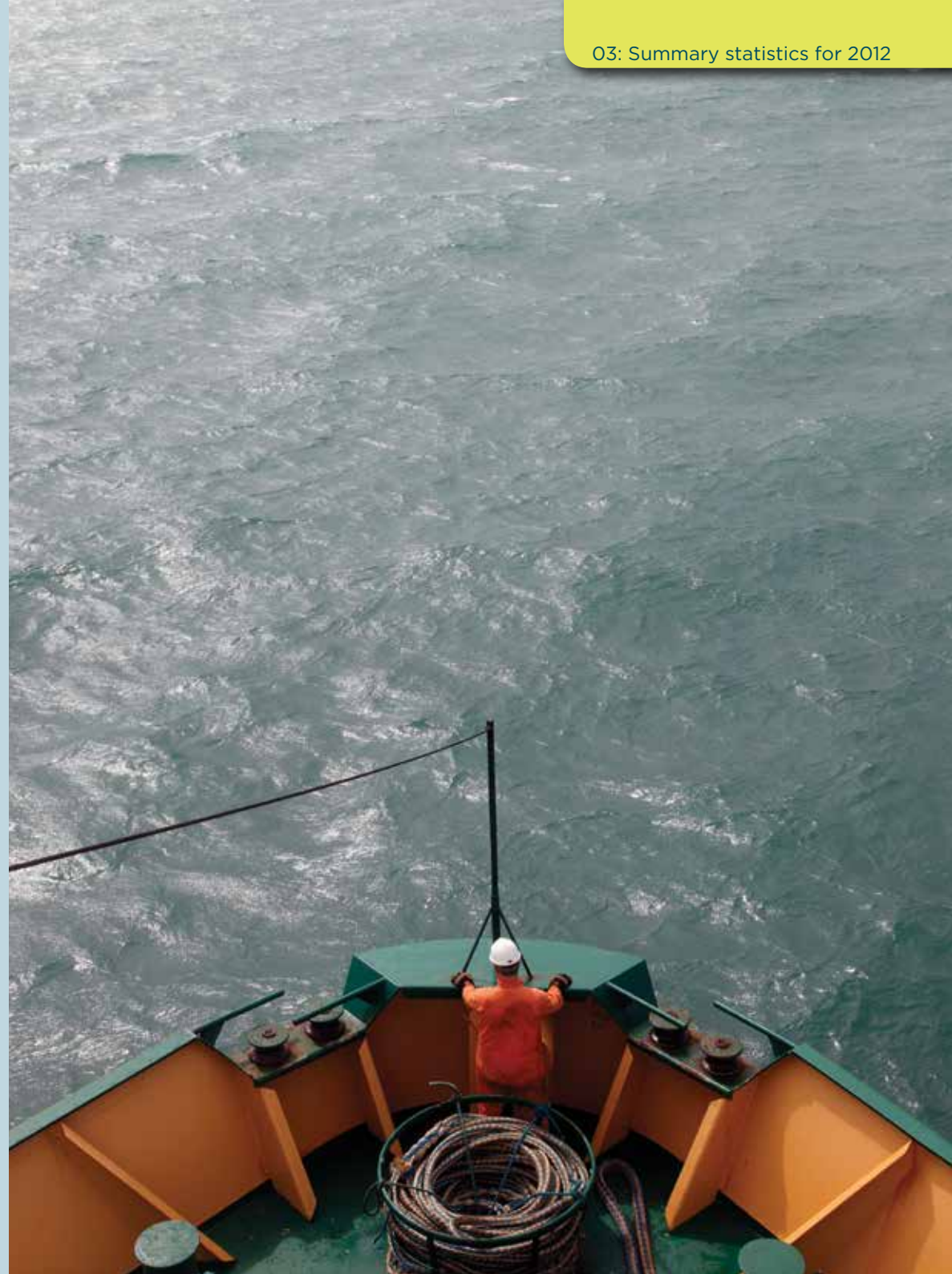
^{*3} This large decrease in the area licensed is primarily a result of the Short Term Marine Licensing process during 2012, the effect of which is expected to be a one to two year temporary situation

^{*4} Annual figures are calculated as of end of the 31st December, and therefore incorporate any changes that may have occurred through the year

^{*5} Based on a standardised 6 and 12 nm (UKHO 01/01/05) to allow for accurate comparison between years

Area of seabed licensed and dredged 2008-2012***New area licensed versus existing area surrendered 2008-2012***

* Includes areas temporarily reduced as part of the Short Term Marine Licence process



Humber region

Background

- The Humber region has 10 production licences, operated by British Dredging Ltd, Hanson Aggregates Marine Ltd, Tarmac Marine Dredging Ltd, Van Oord UK Ltd and Westminster Gravels Ltd for both sand and gravel, principally for use in the construction industry
- During 2012, 1.45 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 4.80 million. In addition 0.86 million tonnes were specifically dredged for beach nourishment
- Of the total marine aggregate dredged for construction from the Humber region:
 - 54.0 per cent of the tonnage dredged was delivered to the Continent (0.78m)
 - 30.6 per cent of the tonnage dredged was delivered to the Humber (0.44m)
 - 15.2 per cent of the tonnage dredged was delivered to the Thames Estuary (0.22m)
 - 0.3 per cent of the tonnage dredged was delivered to the South Coast (0.004m)
- 0.63 million tonnes of beach nourishment material was landed in the Humber region.

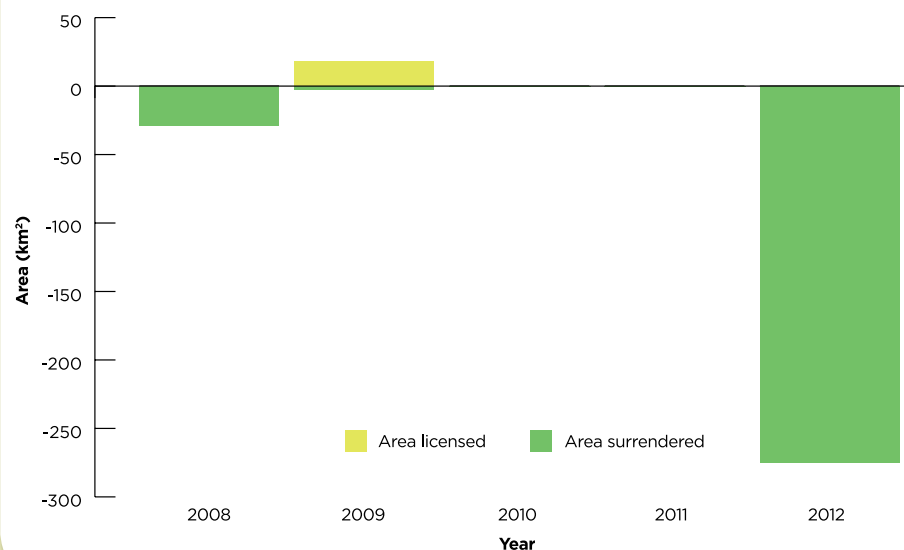
Regional statistics

- The licensed area in the region was 194.97km²
- The total area actually available to be dredged within the region was 109.84km²
- Dredging took place within 19.28km², 9.9 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 0.49km², representing 23.44 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place within 9.71km²
- During 2012, the area licensed for marine aggregate extraction decreased.

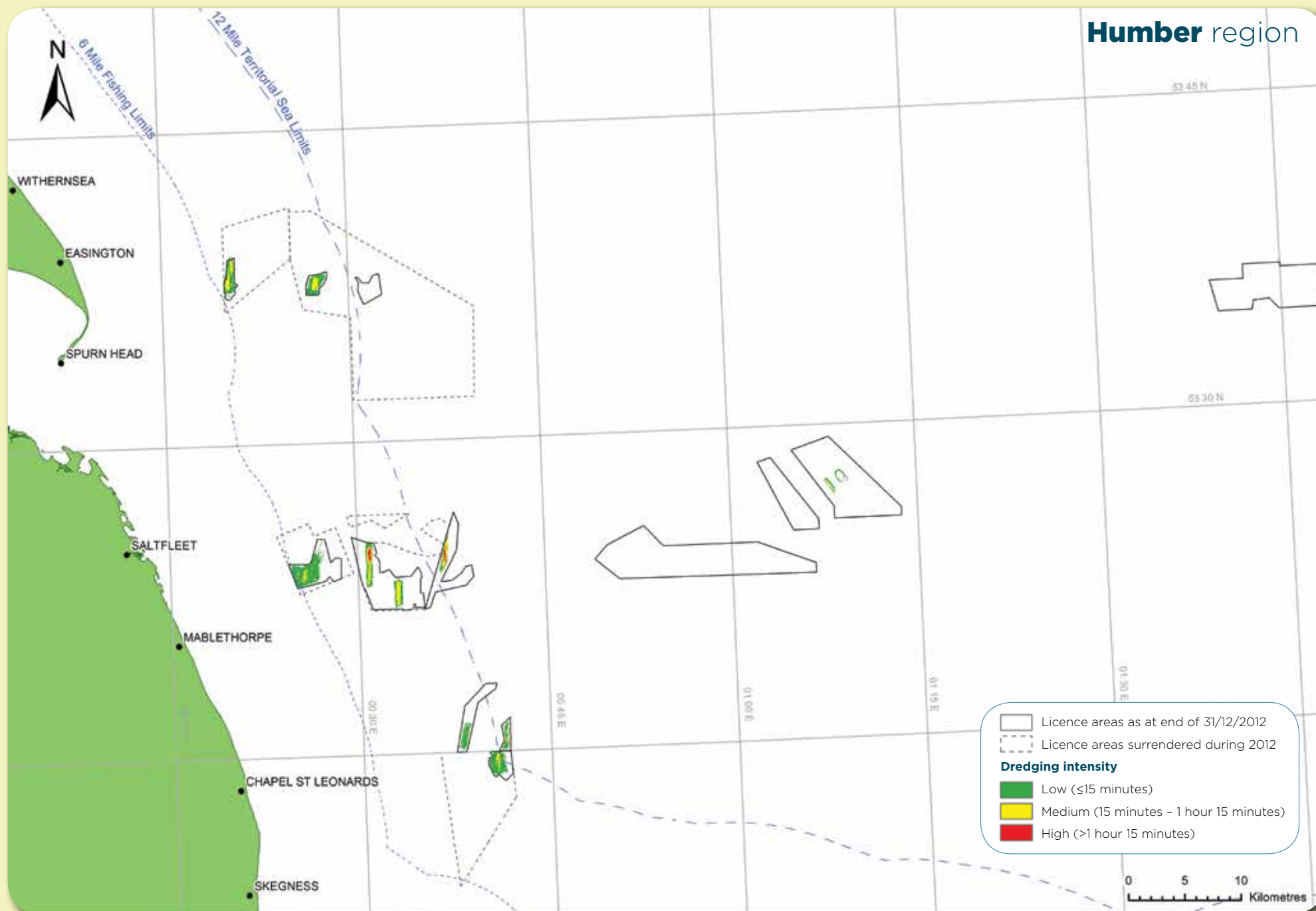
Area of seabed licensed and dredged*



Area of seabed licensed and surrendered*



* Includes areas temporarily reduced as part of the Short Term Marine Licence process



East Coast region

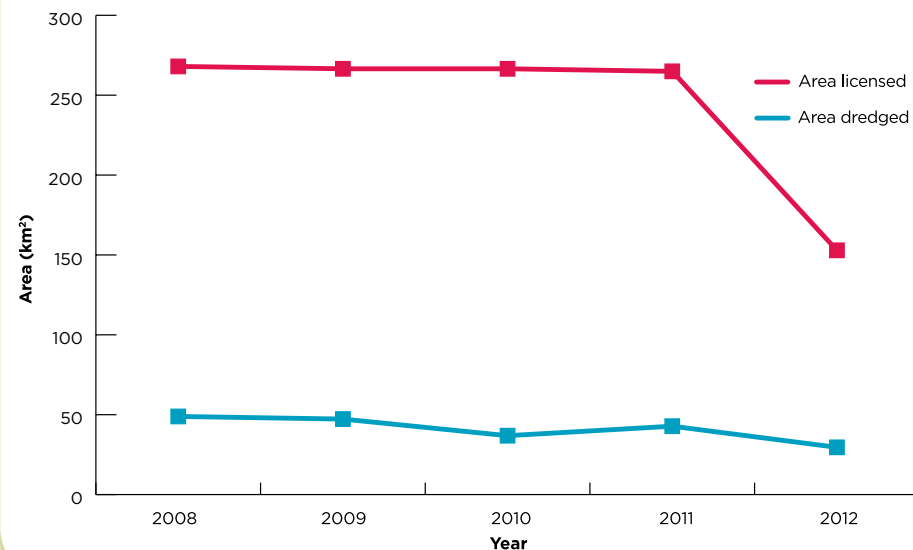
Background

- The East Coast region has 13 production licences, operated by British Dredging Ltd, CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd, Tarmac Marine Dredging Ltd and Volker Dredging Ltd for both sand and gravel, principally for use in the construction industry
- During 2012, 3.56 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 10.80 million
- Of the total marine aggregate dredged for construction from the East Coast region:
 - 53.7 per cent of the tonnage dredged was delivered to the Thames Estuary (1.91m)
 - 43.0 per cent of the tonnage dredged was delivered to the Continent (1.53m)
 - 2.62 per cent of the tonnage dredged was delivered to the Humber (0.09m)
 - 0.6 per cent of the tonnage dredged was delivered to the South Coast (0.02m)
 - 0.1 per cent of the tonnage dredged was delivered to the East English Channel (0.004m).

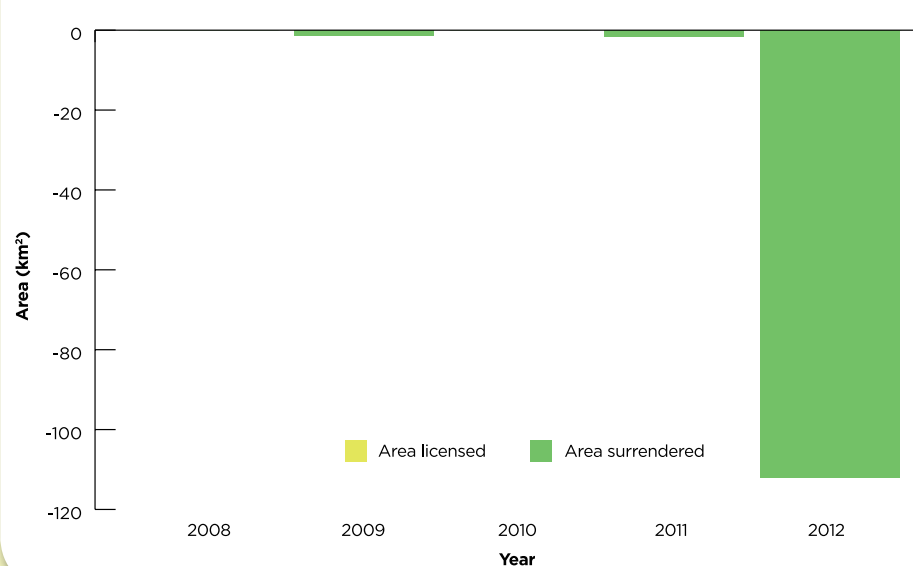
Regional statistics

- The licensed area in the region was 152.89km²
- The total area actually available to be dredged within the region was 132.17km²
- Dredging took place within 29.57km², 19.3 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 2.10km², representing 56.67 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place within 11.50km²
- During 2012, the area licensed for marine aggregate extraction decreased.

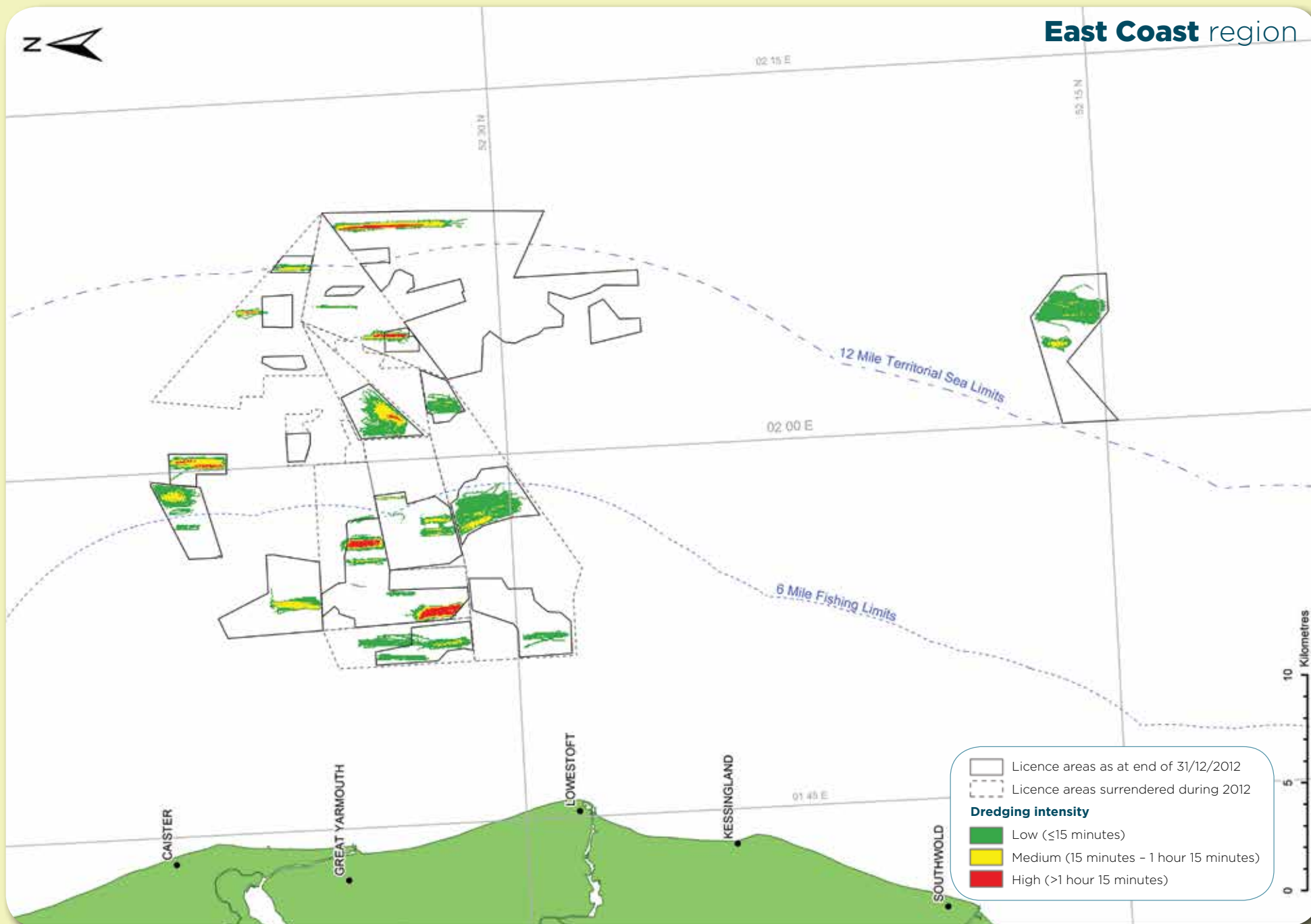
Area of seabed licensed and dredged*



Area of seabed licensed and surrendered*



* Includes areas temporarily reduced as part of the Short Term Marine Licence process



Thames Estuary region

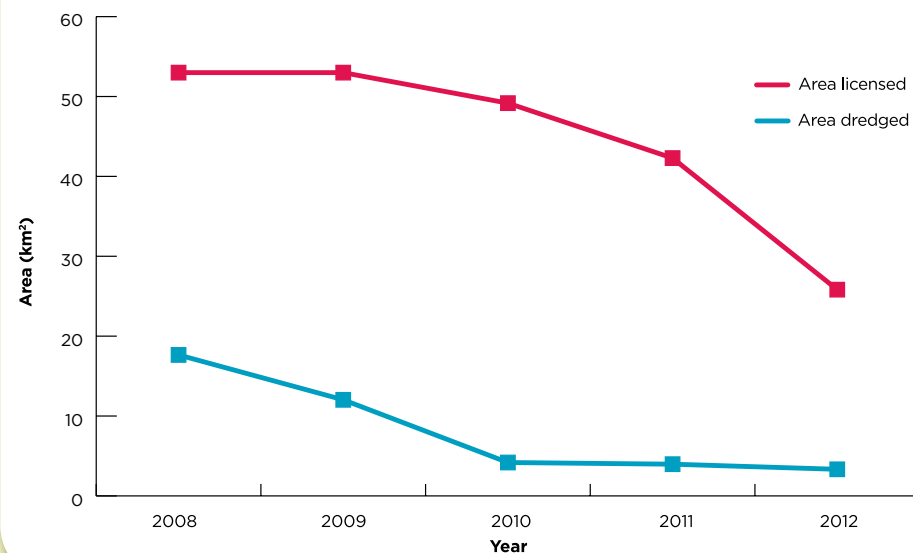
Background

- The Thames region has 4 production licences, operated by Britannia Aggregates Ltd, CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd and Tarmac Marine Dredging Ltd for both sand and gravel, principally for use in the construction industry
- During 2012, 1.09 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 1.75 million
- Of the total marine aggregate dredged for construction from the Thames Estuary region:
 - 96.9 per cent of the tonnage dredged was delivered to the Thames Estuary (1.06m)
 - 1.34 per cent of the tonnage dredged was delivered to the Continent (0.01m)
 - 1.09 per cent of the tonnage dredged was delivered to the East Coast (0.01m)
 - 0.70 per cent of the tonnage dredged was delivered to the South Coast (0.01m).

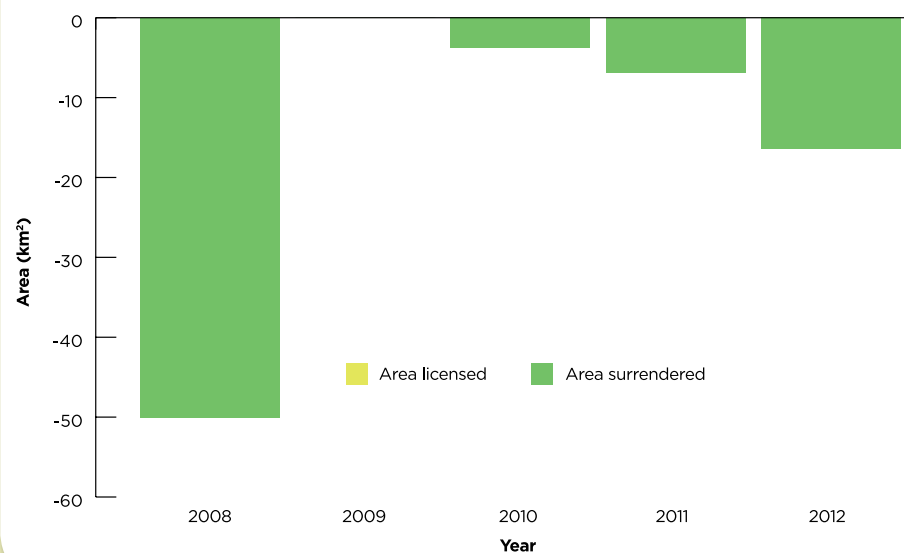
Regional statistics

- The licensed area in the region was 25.82km²
- The total area actually available to be dredged within the region was 22.77km²
- Dredging took place within 3.33km², 12.9 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 0.52km², representing 67.80 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place within 1.20km²
- During 2012, the area licensed for marine aggregate extraction decreased.

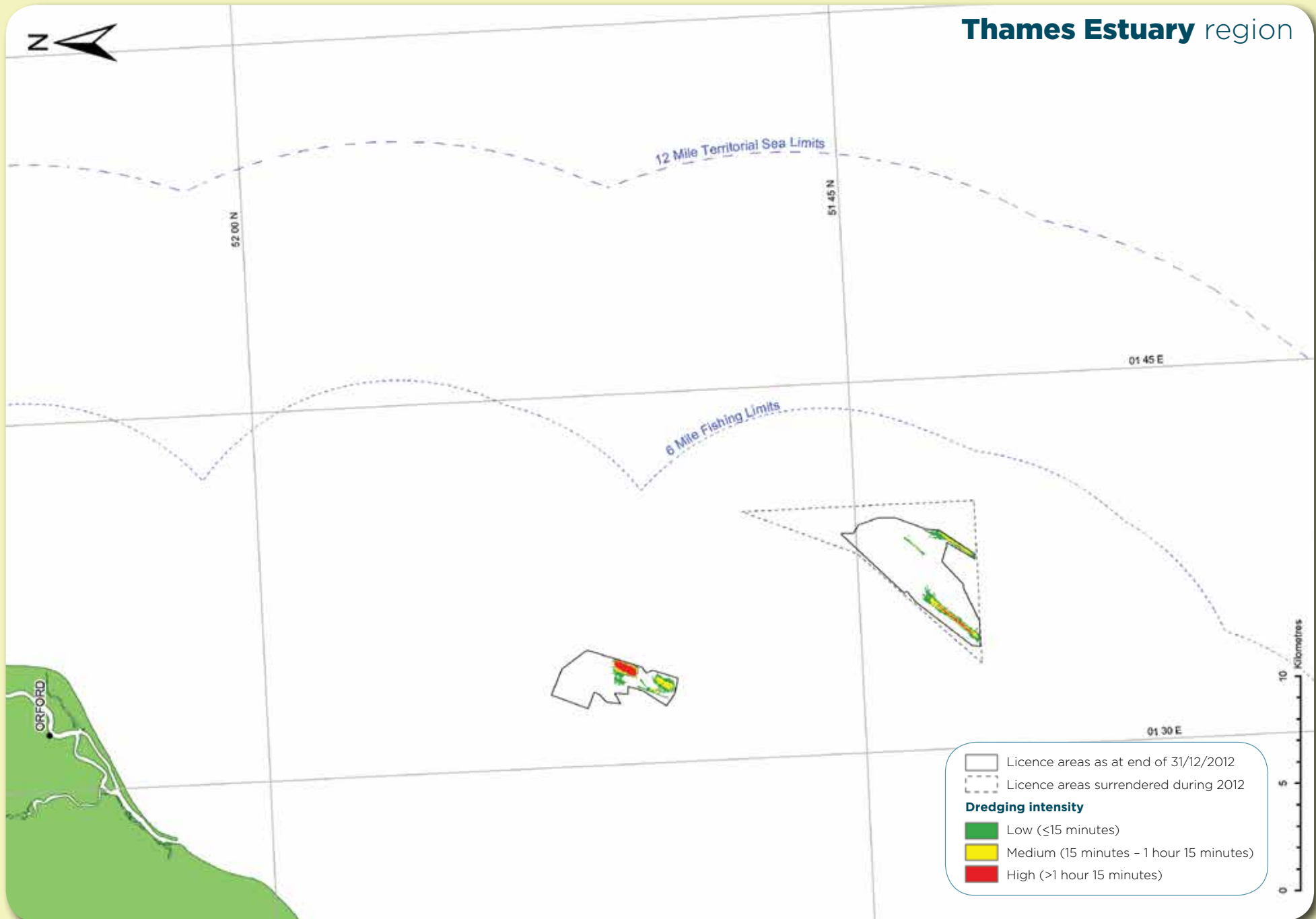
Area of seabed licensed and dredged*



Area of seabed licensed and surrendered*



* Includes areas temporarily reduced as part of the Short Term Marine Licence process



East English Channel region

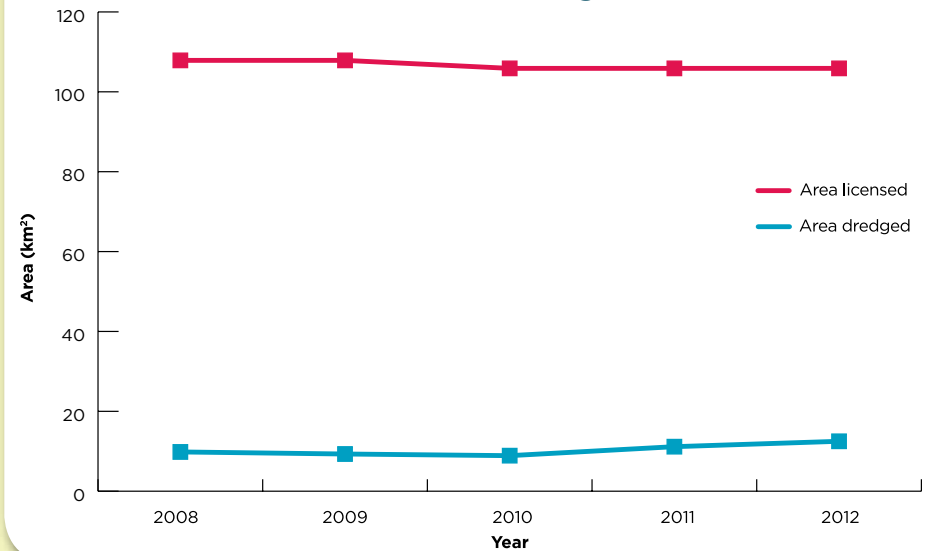
Background

- The East English Channel region has 6 production licences, operated by CEMEX UK Marine Ltd, DEME Building Materials Ltd, Hanson Aggregates Marine Ltd, Tarmac Marine Dredging Ltd and Volker Dredging Ltd for sand and gravel, principally for use in the construction industry
- During 2012, 3.55 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 7.80 million. In addition 0.21 million tonnes were specifically dredged for beach nourishment
- Of the total marine aggregate dredged for construction from the East English Channel region:
 - 52.30 per cent of the tonnage dredged was delivered to the Thames Estuary (1.86m)
 - 45.04 per cent of the tonnage dredged was delivered to the Continent (1.60m)
 - 1.49 per cent of the tonnage dredged was delivered to the East Coast (0.05m)
 - 1.03 per cent of the tonnage dredged was delivered to the East English Channel (0.04m)
 - 0.14 per cent of the tonnage dredged was delivered to the South Coast (0.005m)
 - 0.15 million tonnes of beach nourishment material was landed in the East English Channel region.

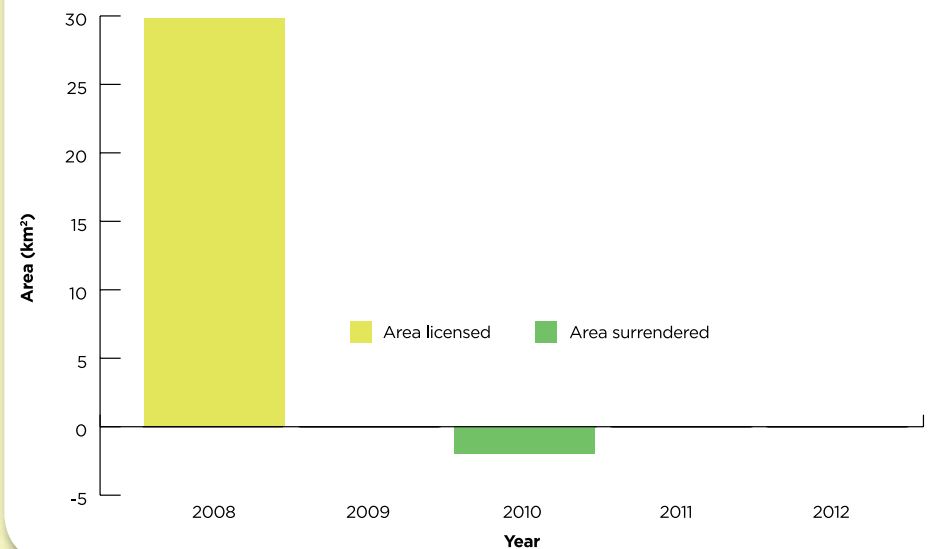
Regional statistics

- The licensed area in the region was 105.87km²
- The total area actually available to be dredged within the region was 27.23km²
- Dredging took place within 12.50km², 11.8 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 1.93km², representing 75.67 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place within 3.48km²
- During 2012, the area licensed for marine aggregate extraction remained unchanged^{*1}

Area of seabed licensed and dredged^{*2}

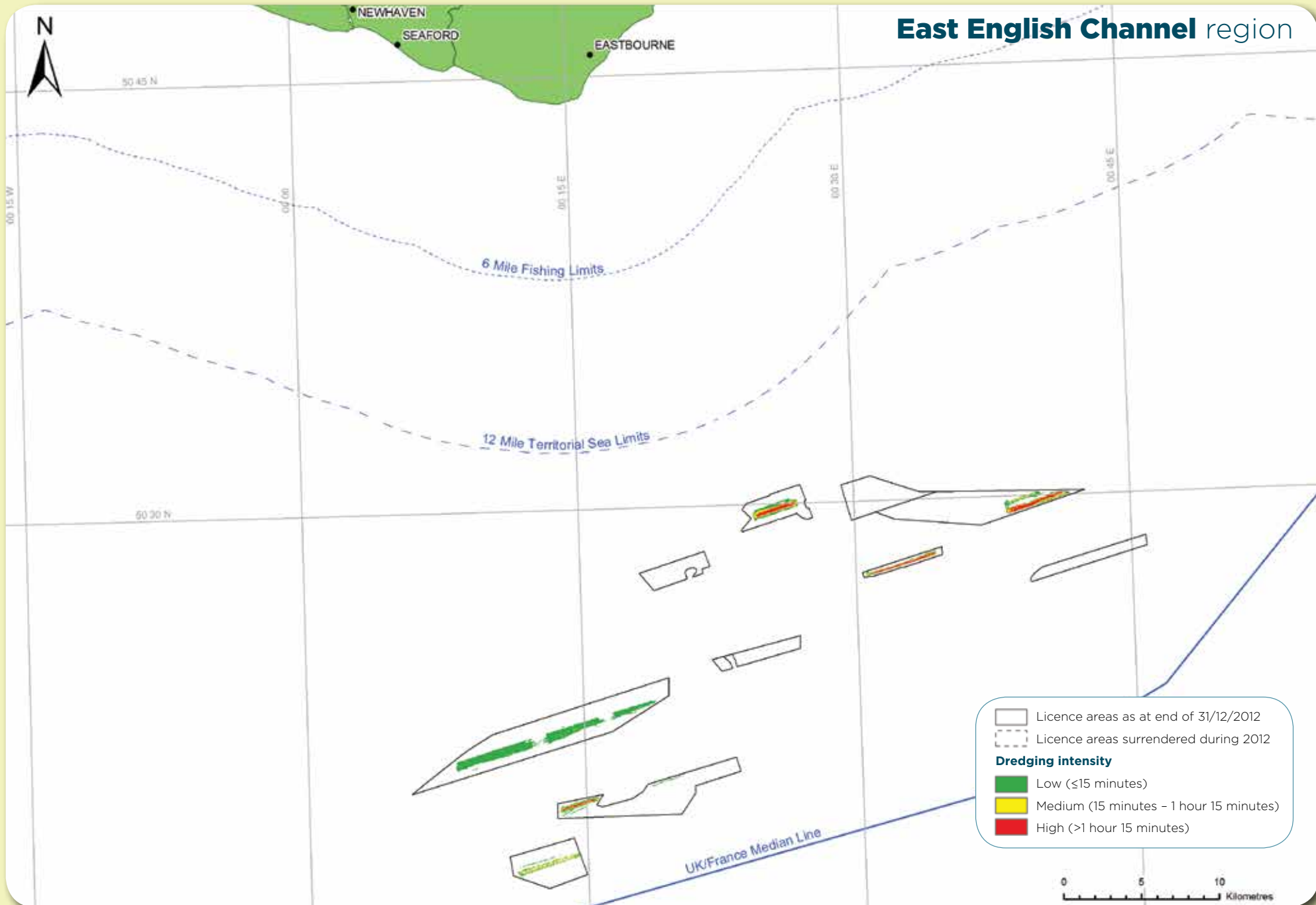


Area of seabed licensed and surrendered^{*2}



^{*1} Coordinate adjustment during relicensing resulted in minor area corrections within this region

^{*2} Includes areas temporarily reduced as part of the Short Term Marine Licence process



South Coast region

Background

- The South Coast region has 14 production licences, operated by CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd, Kendall Bros (Portsmouth) Ltd, Northwood (Fareham) Ltd, Tarmac Marine Dredging Ltd, Volker Dredging Ltd and Westminster Gravels Ltd for sand and gravel, principally for use in the construction industry
- During 2012, 3.63 million tonnes of construction aggregate were dredged from a permitted licensed tonnage of 8.70 million. In addition 0.73 million tonnes were specifically dredged for beach nourishment
- Of the total marine aggregate dredged for construction from the South Coast region:
 - 62.44 per cent of the tonnage dredged was delivered to the South Coast (2.27m)
 - 17.02 per cent of the tonnage dredged was delivered to the Continent (0.62m)
 - 16.22 per cent of the tonnage dredged was delivered to the Thames Estuary (0.59m)
 - 3.80 per cent of the tonnage dredged was delivered to the East English Channel (0.14m)
 - 0.52 per cent of the tonnage dredged was delivered to the East Coast (0.02m)
 - 0.58 million tonnes of beach nourishment material was landed in the South Coast and East English Channel regions.

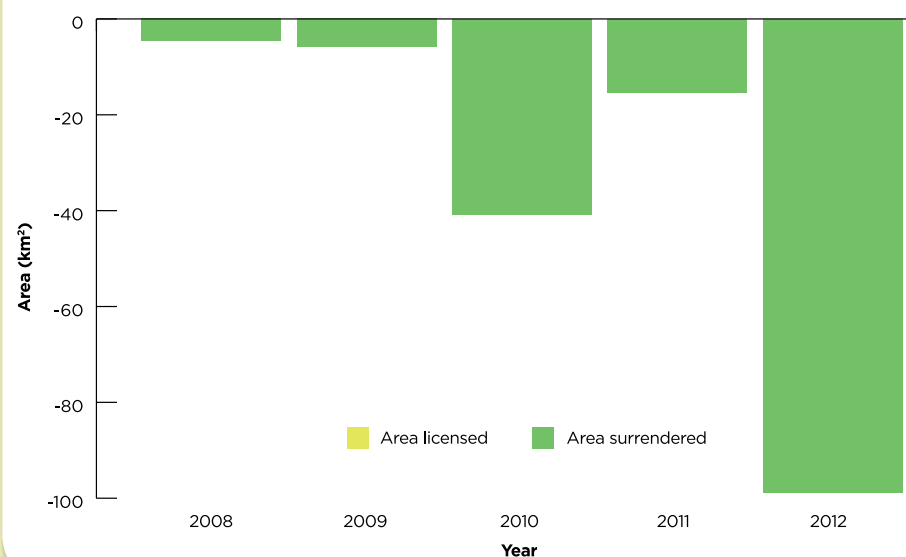
Regional statistics

- The licensed area in the region was 49.60km²
- The total area actually available to be dredged within the region was 54.93km²
- Dredging took place within 23.31km², 47 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 2.13km², representing 49.67 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place within 9.76km²
- During 2012, the area licensed for marine aggregate extraction decreased.

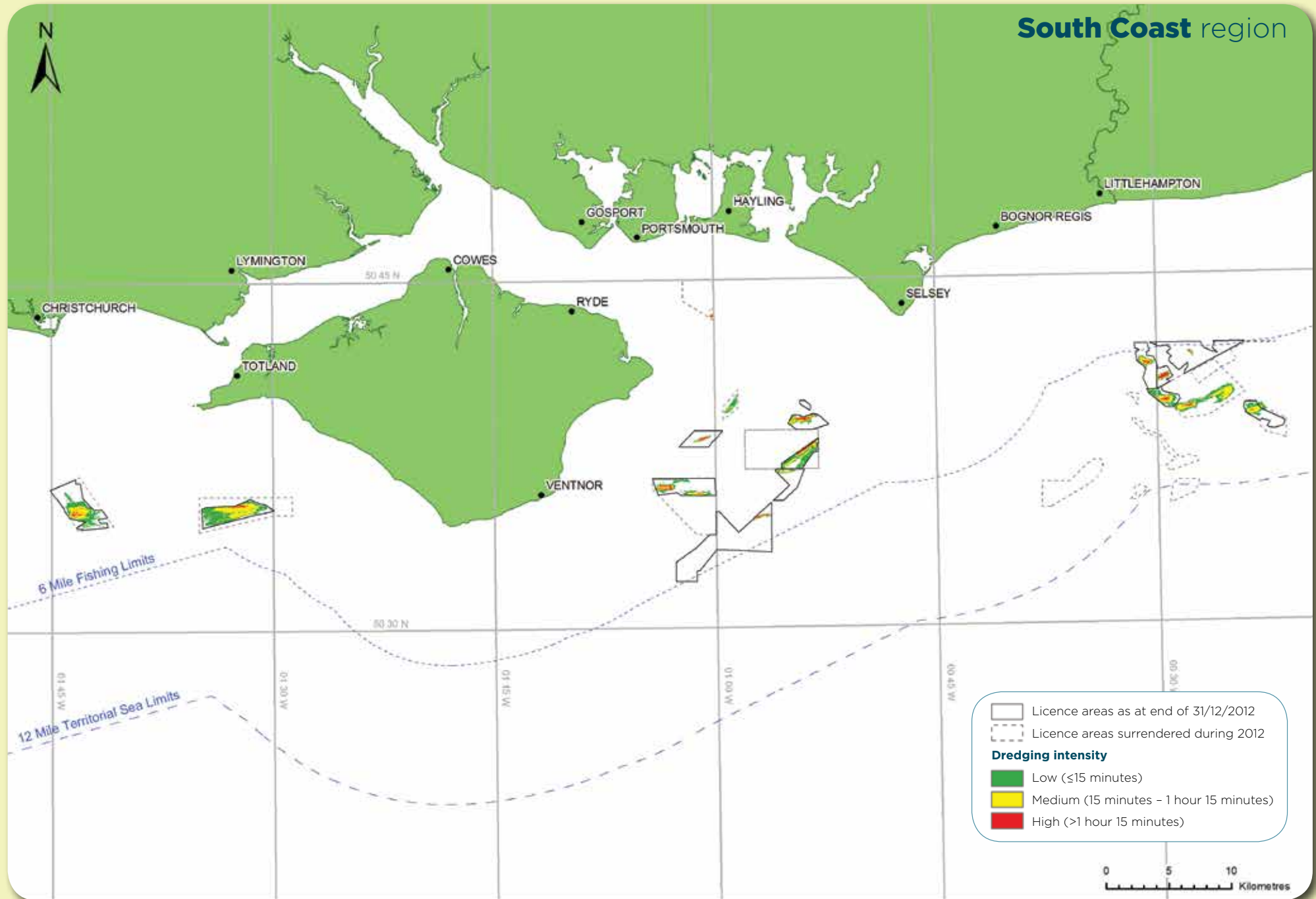
Area of seabed licensed and dredged*



Area of seabed licensed and surrendered*



* Includes areas temporarily reduced as part of the Short Term Marine Licence process



South West region

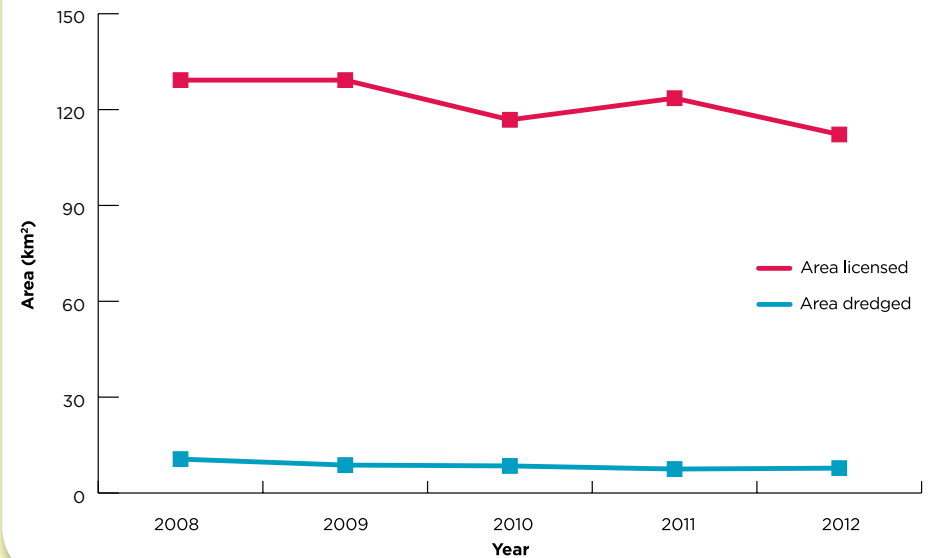
Background

- The South West region has 11 production licences, operated by British Dredging Ltd, CEMEX UK Marine Ltd, Hanson Aggregates Marine Ltd, Llanelli Sand Dredging Ltd, Severn Sands Ltd and Tarmac Marine Dredging Ltd for sand, principally for use in the construction industry
- During 2012, 1.07 million tonnes of material were dredged from a permitted licensed tonnage of 3.10 million
- Of the total material dredged in the South West region:
 - 100 per cent of the tonnage dredged was delivered to the South West (1.07m). 59.89 per cent of this went to Welsh wharves (0.64m). 40.11 per cent of this went to English wharves (0.43m).

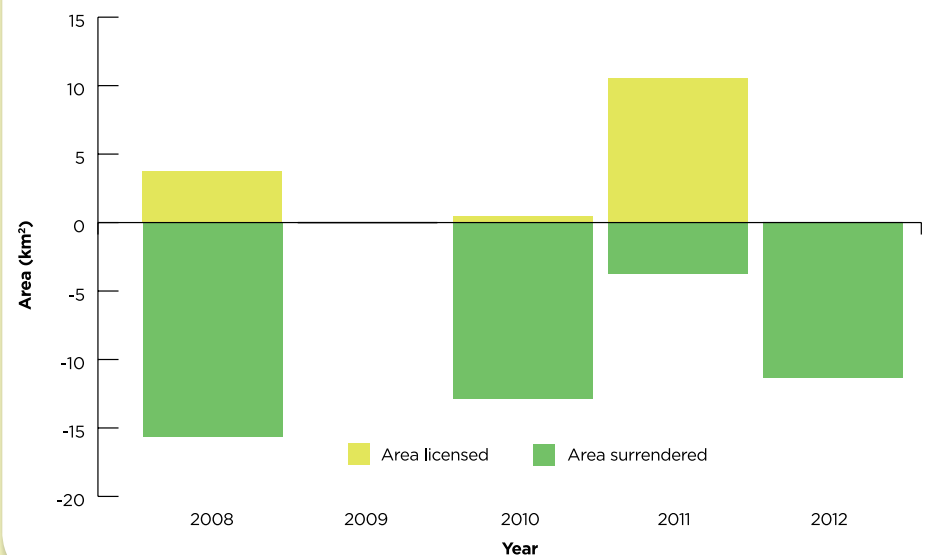
Regional statistics

- The licensed area in the region was 112.21km²
- The total area actually available to be dredged within the region was 31.75km²
- Dredging took place within 7.78km², 6.9 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 1.08km², representing 64.19 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place within 2.89 km²
- During 2012, the area licensed for marine aggregate extraction decreased.

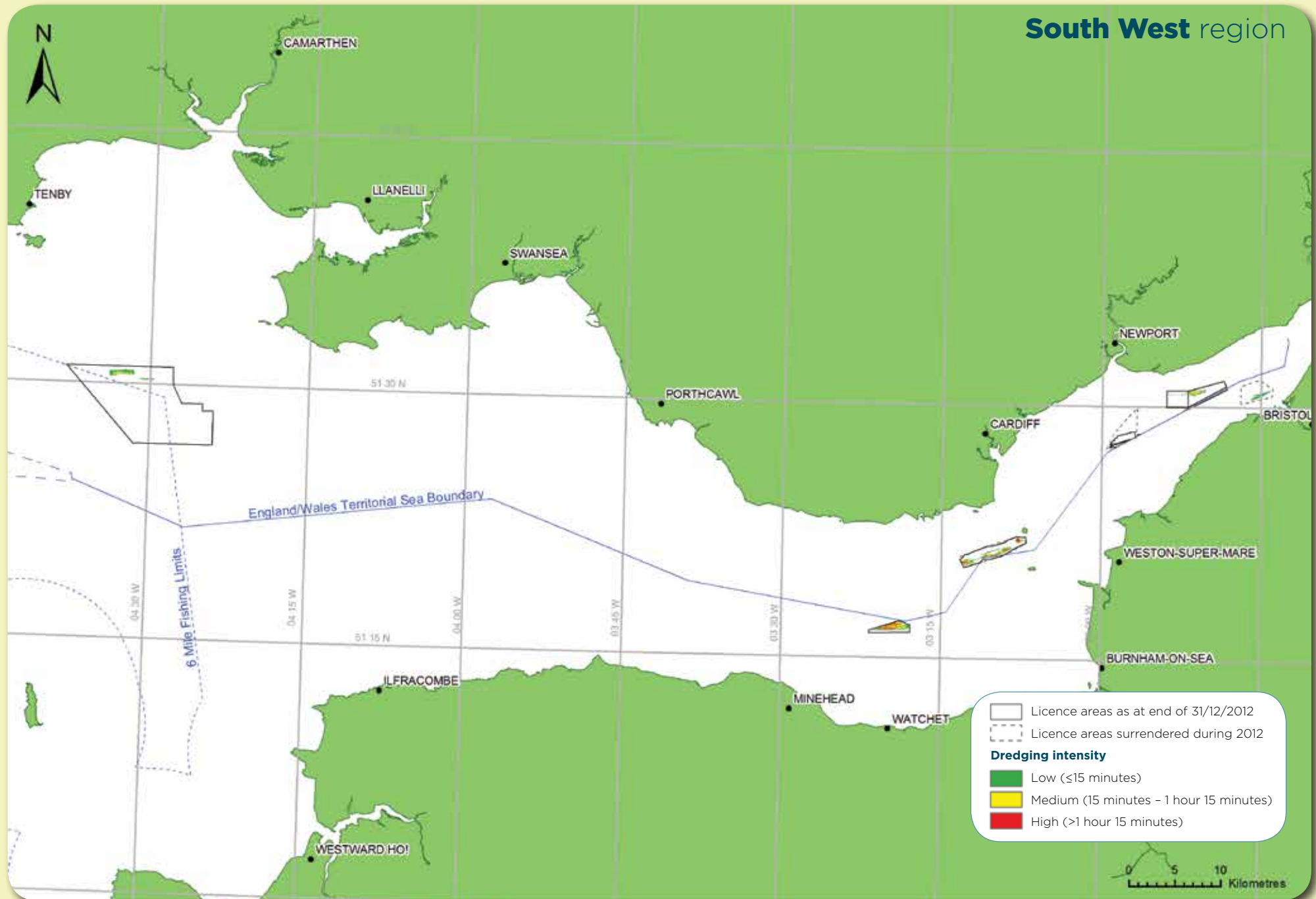
Area of seabed licensed and dredged*



Area of seabed licensed and surrendered*



* Includes areas temporarily reduced as part of the Short Term Marine Licence process



North West region

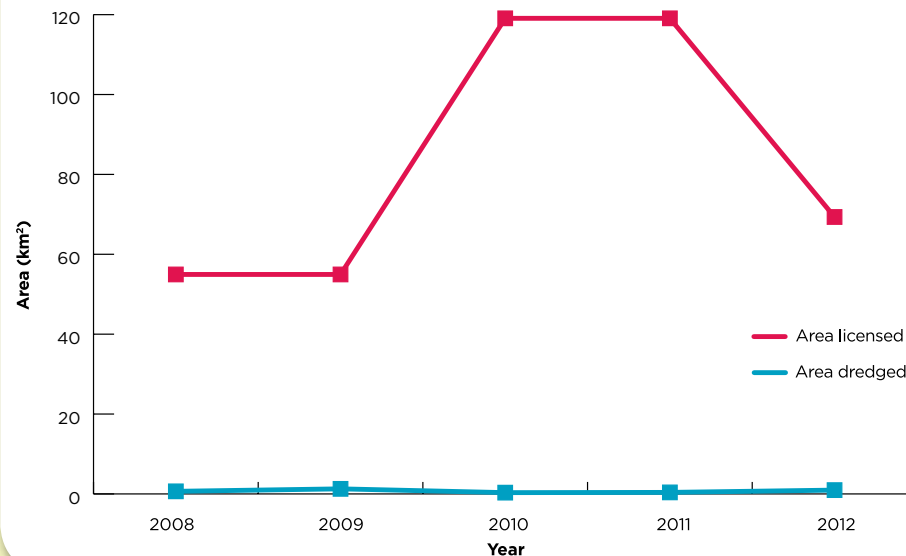
Background

- The North West region has 4 production licences, operated by Norwest Sand and Ballast Co, Tarmac Marine Dredging Ltd and Westminster Gravels Ltd. for sand, principally for use in the construction industry
- During 2012, 0.29 million tonnes of material were dredged from a permitted licensed tonnage of 1.43 million. In addition 0.35 million tonnes were specifically dredged for reclamation fill
- Of the total material dredged in the North West region:
 - 97.32 per cent of the tonnage dredged was delivered to the North West (0.28m). 22.45 per cent of this went to Welsh wharves (0.06m). 77.55 per cent of this went to English wharves (0.22m)
 - 2.68 per cent of the tonnage dredged was delivered to Welsh wharves in the South West (0.01m)
 - 0.31 million tonnes of reclamation fill material was landed in the North West region.

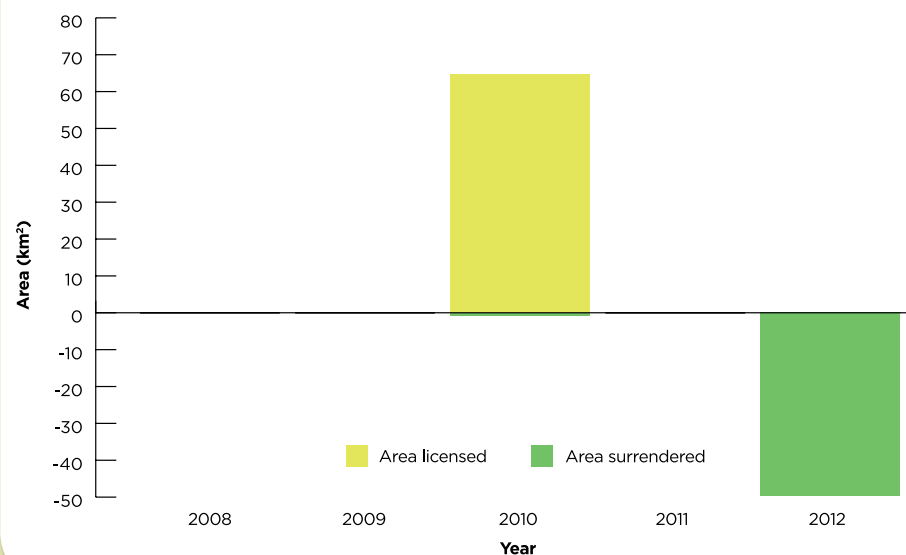
Regional statistics

- The licensed area in the region was 69.34km²
- The total area actually available to be dredged within the region was 12.31km²
- Dredging took place within 0.95km², 1.4 per cent of the licensed area
- High intensity dredging (greater than 1 hour 15 minutes) is equal to 0.16km², representing 71.85 per cent of regional dredging activity
- 90 per cent of regional dredging effort took place within 0.40km²
- During 2012, the area licensed for marine aggregate extraction decreased.

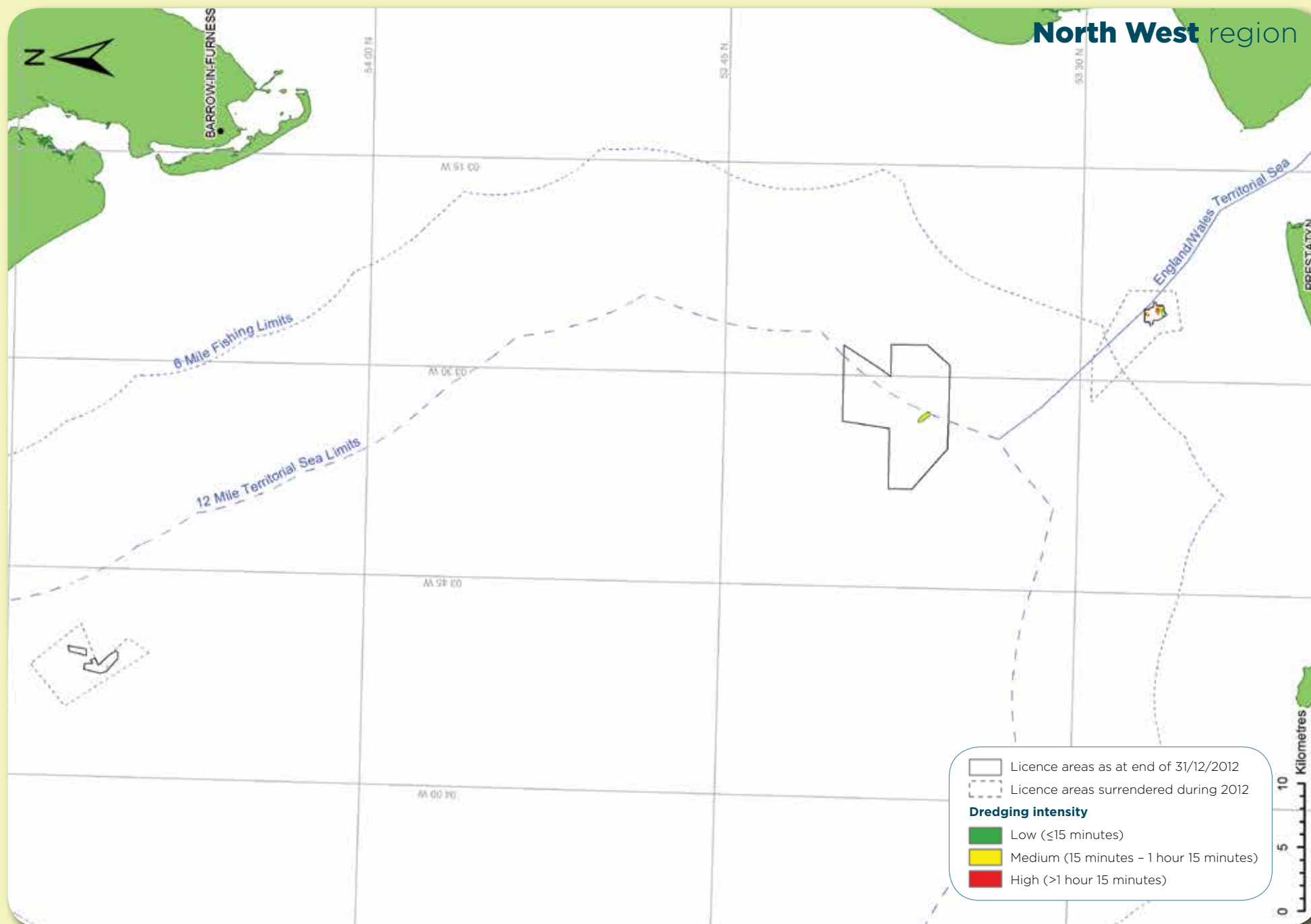
Area of seabed licensed and dredged*



Area of seabed licensed and surrendered*



* Includes areas temporarily reduced as part of the Short Term Marine Licence process





THE CROWN ESTATE manages a hugely diverse £8 billion property portfolio across the UK. The Crown Estate's marine properties include around half the UK's foreshore (17,000km) and almost the entire seabed out to the 12 nautical mile (nm) territorial limit around the UK. It also includes the rights to the natural resources in the UK Continental Shelf, with the exception of oil, coal and gas.

Guided by our core values of commercialism, integrity and stewardship, our role is to manage and enhance the value of our assets and to return any surplus to the Treasury for the benefit of the nation.

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 aggregate industry operated an average of 27 vessels on 62 production licences around the UK during 2012.

BMAPA membership (as of 31.12.12) 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, Tarmac Marine Dredging Ltd and Volker Dredging Ltd.



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