

## Clean Seas Environmental Monitoring Programme (CSEMP)

### C END 14/15

**DURATION:** 5<sup>th</sup> July to 16<sup>th</sup> July 2015

Embark: Lowestoft Sunday 5<sup>th</sup> July  
Disembark: Portland Thursday 16<sup>th</sup> July

Cabin allocations (see appendix 4)

Name	Berth	Name	Berth
Brett Lyons	SIC cabin	John Barber	Main Sci. 6
John Bignell	Upper Sci.1	Paul Nelson	Main Sci. 7
Kelly Bateman	Upper Sci. 2	Adam Porter (Exeter Uni)	Main Sci. 8
Stuart Ross	Main Sci. 1	Marine mammal observer	Lower Sci. 2
Matt Green	Main Sci. 2	Marine mammal observer	Lower Sci. 3
Andy Smith	Main Sci. 3	Free	Lower Sci. 4
Marta Vannoni	Main Sci. 4		
Benthic Ecologist TBC	Main Sci. 5		

**LOCATION:** North Sea and Eastern English Channel.

The data generated during this cruise will be used to meet obligations for reporting of contaminant data to MERMAN and the ICES database and for subsequent assessments for OSPAR and Good Environmental Status (GES descriptors 8, 9 & 10) under the Marine Strategy Framework Directive (MSFD). In addition, the cruise will complete dredge disposal site sampling off the North east coast (Blyth) and undertake nutrient and pCO<sub>2</sub> sampling as part of a major NERC-Defra Shelf Sea Biogeochemistry programme.

#### **AIMS:**

1. To collect samples of demersal fish and sediment samples from the North Sea and Eastern English Channel in support of the Clean Seas Environmental Monitoring Programme (CSEMP) (MSFD Descriptor 8 & 9).
2. To conduct marine benthic litter surveys (MSFD Descriptor 10).
3. For the NERC-Defra Shelf Sea Biogeochemistry programme: To collect daily surface discrete samples for total alkalinity, dissolved inorganic carbon, inorganic nutrients and dissolved organic matter. Additionally to run the underway surface pCO<sub>2</sub> system throughout the cruise.
4. Sample zooplankton as part of R&D programme into uptake of micro-plastics into the food web (Cefas-Exeter University PhD programme).
5. To conduct surveys of marine animals (birds and cetaceans) and part of Marine Life UK programme.
6. Undertake sampling SLAB5 dredge disposal site of Blyth (North Tyne area) sites.

**PLAN (subject to change based on prevailing weather conditions):**

- *RV Endeavour* will sail from Lowestoft on the 5<sup>th</sup> July (time TBC).
- The *RV Endeavour* will sail to CSEMP stations off the Wash before proceeding north via the Humber to the Tees and Amble stns to take samples (Aims 1-5)
- While positioned off the Tyne undertaken 24hrs of sediment sampling (SLAB5) at the dredge disposal site off Blyth, North Tyne area (Aim 6).
- *RV Endeavour* will then sail to the Dogger Bank where samples will be taken at the six CSEMP stations in this region (Aims 1-5).
- Further sampling will take place at CSEMP stations as *RV Endeavour* steams south to the Gabbard, Indefatigable Bank, Smith Knoll and then through the Dover Straits to Rye bay and Newhaven (Aim 1-5).
- After which the *RV Endeavour* will then steam to Portland and berth on the 16<sup>th</sup> July.

Annex 1: **CSEMP FISHING STATIONS**

Annex 2: **MAP SHOWING LOCATION OF CSEMP FISHING AND SEDIMENT STATIONS**

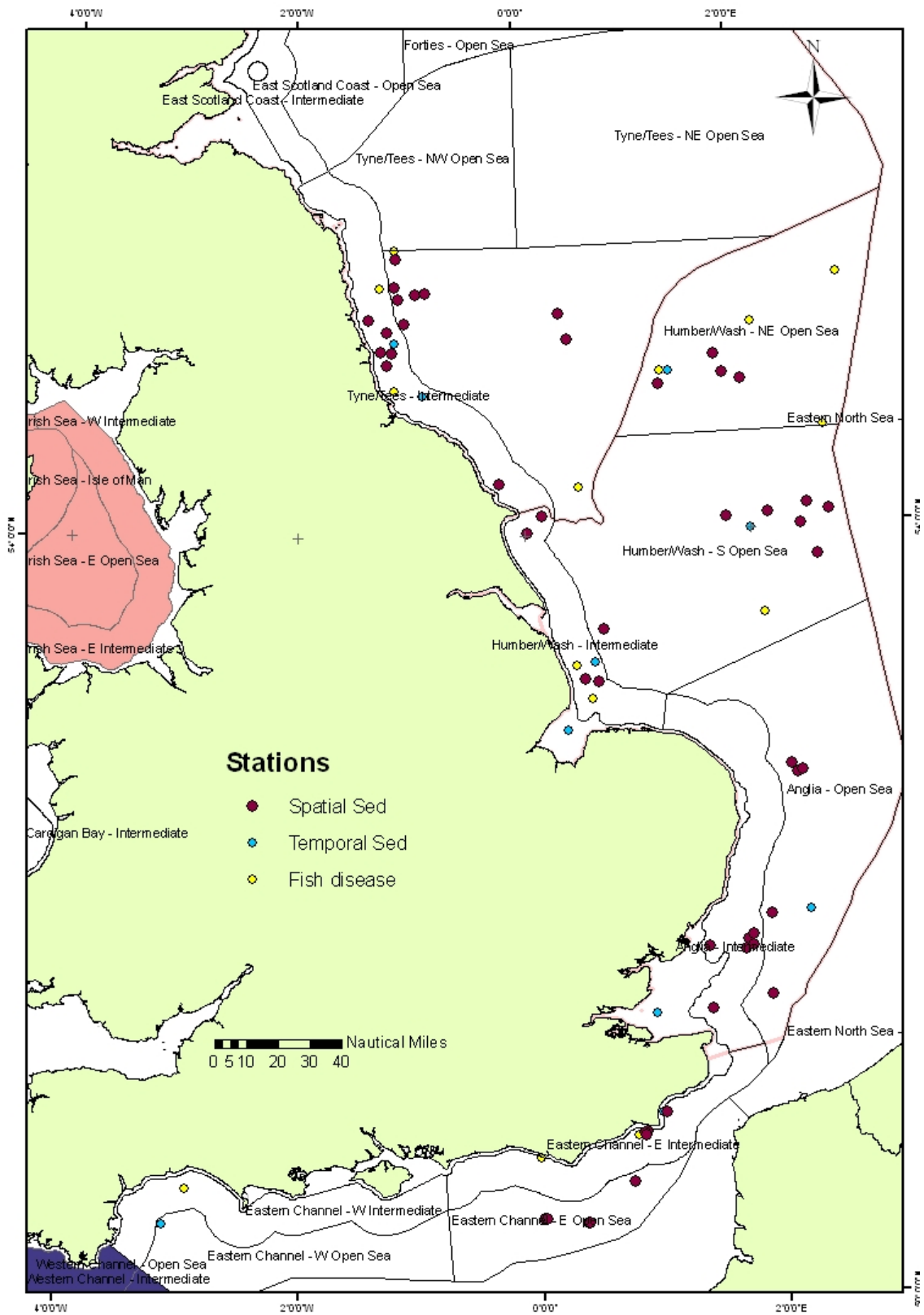
Annex 3: **Dredge spoil monitoring site**

Annex 4: **RV Cefas Endeavour cabin layout**

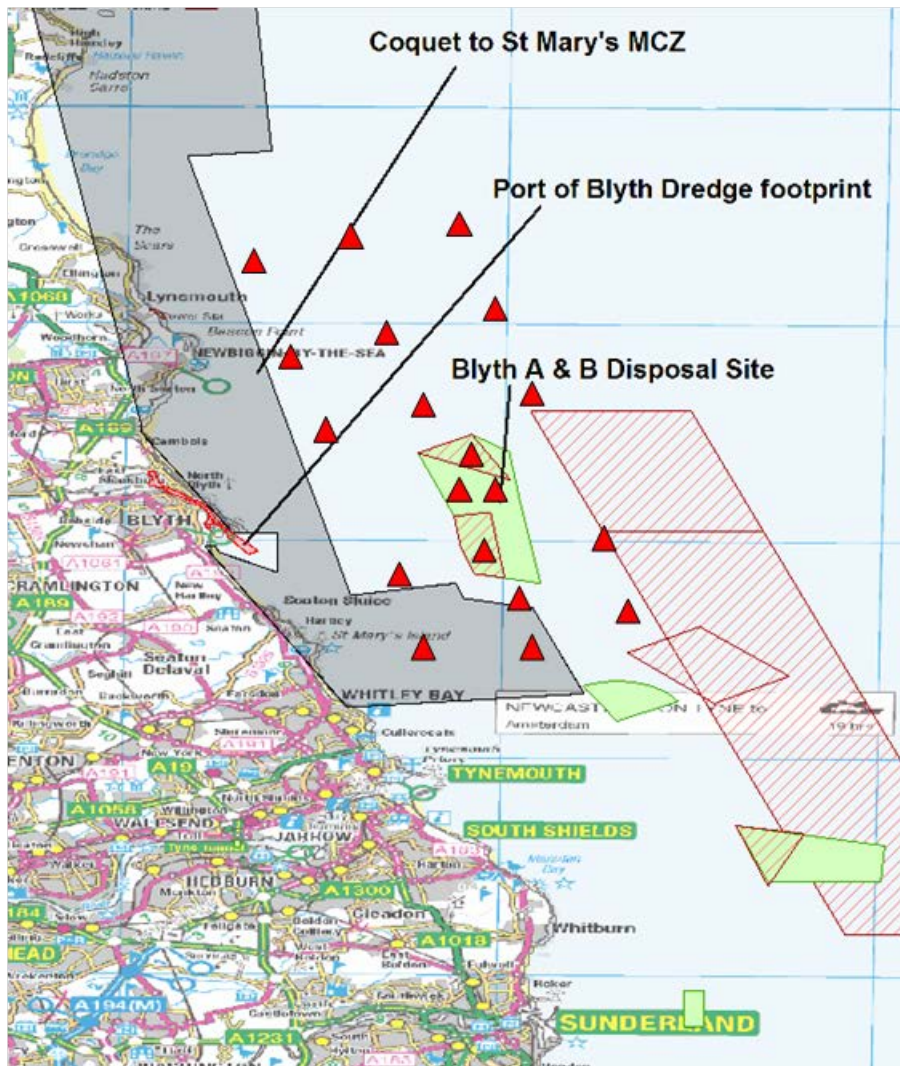
**Annex 1: CSEMP FISHING STATIONS**

<b>CSEMP Number</b>	<b>Location</b>	<b>Mid tow Lat. Long.</b>
Using old NMMP numbering		
244	Amble	55 16.01 N 01 15.26 W
243	Farne	55 29.71 N 01 07.59 W
283	North East Dogger	55 18.05 N 02 53.82 E
284	North Dogger	55 04.08 N 02 05.40 E
286	West Dogger	54 46.76 N 01 17.69 E
287	Central Dogger	54 30.00 N 02 42.53 E
294	Tees Bay	54 45.25 N 01 08.31 W
344	Off Flamborough	54 14.72 N 00 29.91 E
346	Off Humber	54 03.92 N 01 47.46 E
377	Humber	53 19.37 N 00 25.47 E
378	Indefatigable Bank	53 33.40 N 02 04.92 E
387	Wash	53 08.50 N 01 33.30 E
475	Outer Gabbard	52 01.86 N 02 06.57 E
486	Rye Bay	50 46.74 N 00 46.83 E
New	Off Newhaven	50 45.59 N 00 00.00 E
Trend	Smith's Knoll	52 48.67 N 02 45.33 E
Trend	Alternative Smith' Knoll	52 43.91 N 02 27.51 E
Trend	Smith's Knoll Bank	52 46.48 N 02 17.25 E

## Annex 2: MAP SHOWING LOCATION OF CSEMP STATIONS



**Annex 3: SLB5 monitoring sampled using Hamon grab (triplicate) and a shipek grab at each location**



**Annex 4: RV Cefas Endeavour cabin layout**

