



Marine Information Network
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4th January 2009.

For the attention of: Bruce Tomlinson, Project Director, Anglian Offshore Dredging Association,
c/o Emu Ltd, 1 Mill Court, The Sawmills, Durley, Southampton SO32 2EJ.

Dear Dr. Tomlinson, AODA MAREA Final Scoping Report.

Thank you for a copy of the finalised Scoping Study for the Marine Aggregates Regional Environment Assessment along with accompanying appendices on CD rom.

In our response dated 3rd October 2008 to the Scoping Study questionnaire we informed you, amongst other matters, that:

Thirdly, the wave regime model must take account of changes in the depth of the sea between the offshore sites and the coast. In particular, changes in the nature of offshore sandbanks must be included in the computations of this study. For example, Scroby Sands used to be a permanent above high tide sand bank (measuring 1 mile by ¼ mile) prior to the commencement of offshore dredging, but now has no permanent presence above high tide. This is an important change in the calculations of the wave regime, and other offshore sandbanks in the area require to be assessed in a similar manner. The role of offshore dredging in influencing the physical changes in these offshore sandbanks must also be assessed by the Regional Environmental Assessment.

We have read Appendix C of the finalised Scoping Study prepared by H R Wallingford, titled *Physical Processes Scoping Study*, and we draw your attention in particular to Part 4 of Appendix C, titled *Data gaps and recommendations for further work*, page 15. This is reproduced below:

4 Data gaps and recommendations for further work

This scoping study has identified a considerable amount of available data covering hydrodynamics, seabed characteristics and sediment transport patterns within the study area. There are some areas however, where further data may be useful.

Up to date bathymetry data will be required for the REA, to assess the potential impacts of dredging. A number of digital surveys have been identified for the study area and are available for purchase from SeaZone Ltd. This bathymetry data will form a present day baseline where bathymetry data is required. In addition, information from dredging companies on dredging licences, actual areas dredged, volumes removed and earliest and most recent surveys of the sites will be needed for pre and post dredging modelling.

Any future assessments of specific aggregate extraction licence applications within this region, leading to Environmental Statements, will largely rely on numerical models of hydrodynamic processes to predict any changes in the physical environment in and around the dredging area. Such models should, ideally, be



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calibrated against measured data, and the information listed in Tables 1 to 3 of this report should provide a good guide to the sources of such data.

In addition to these data sets, there are a number of past study reports that provide details of previous hydrodynamic modelling for the Anglian Region that may be helpful. A list of past reports carried out by HR Wallingford in connection with specific proposed or existing licensed dredging areas within this region is provided in Appendix 1 to this report. In addition, there are a number of more general studies of hydrodynamics and sediment transport that provide useful background information in the context of dredging or other offshore activities, and these too are listed in the same Appendix.

Bearing all the above in mind, it is concluded that there is no need for the proposed MAREA for the Anglian Region to involve collection of further hydrodynamic data.

However, there certainly is an opportunity during the REA to involve at least local authorities and the Environment Agency in the collection of data that will be useful in understanding the effects of past aggregate dredging. Such data collection will need to be carried out independently and in a manner that provides reassurance to those bodies that the sampling methodology, contractors, the data collected and any analysis and presentation of the results obtained are from any influence of the dredging industry, as far as is possible.

It is suggested in section 3.1.5 that the main data to be collected should be on bed levels in and around the dredging area, and along narrow corridors between the shoreline and these areas. Information on the volumes of sediment removed from some of the areas surveyed would also need to be supplied, in commercial confidence, to those selected to carry out the independent research.

In addition, sampling of the seabed sediments, within and just outside the licensed aggregate dredging areas, and between there and the shoreline, would be potentially useful in confirming that there is little mobile sediment on the seabed surface beyond the Inner Banks, as suggested by the irregularities of the seabed. It may be useful within the REA to clearly demonstrate the nature and distribution of the sediments on the seabed surface to seawards of the Inner Banks to a non-technical audience. Despite repeated attempts, the marked difference in the morphology and surface sediments of the seabed within the area of the Inner Banks and further seawards has Anglian Region Offshore REA

Physical processes scoping study not been well understood by many of those concerned about marine aggregate dredging in this region.

We wish to inform you that we cannot accept the conclusion of HR Wallingford in the above report (highlighted in blue) that “*Bearing all the above in mind, it is concluded that there is no need for the proposed MAREA for the Anglian Region to involve collection of further hydrodynamic data.*” [underlining in the original].

We believe that H R Wallingford’s historic modelling of the offshore wave regime is seriously flawed, and in particular with reference to the model cited in “*Area 401/2 Dredging Licence Extension: Coastal Impact Study*”, HR Wallingford Report EX 5030, September 2004.” (ref Appendix 1: Reports relevant to marine aggregate dredging – Anglian Region).

We have documented this flaw in our comments on the Area 401/2 licence renewal at the time (2004). You can see the full record of our comments concerning the nature of this flaw and its implications at: <http://www.marinet.org.uk/mad/objection/401-2stephen.pdf> . The consultancy involved at the time was Emu Ltd, and therefore you should also have the hard copy available to you in your own company’s records. We have also recorded this matter again in connection with the Scoping Study, 2008, for Area 202: Cross Sands, see copy dated 22nd October 2008 sent by us to the consultant MES Ltd <http://www.marinet.org.uk/mad/objection/202stephen3mes.pdf> . Hard copies of both of these documents can be supplied if required.

As a result, we wish to record that we are unable to accept the recommendation to you by H R Wallingford in connection with the East Anglian Marine Aggregates Regional Environmental Assessment that no further “hydrodynamic data” is required in order to properly conduct this Regional Environmental Assessment.

To the contrary, we believe that a completely new wave model based on actual recorded factual data (not computer simulation) is required because the existing wave model, largely defined by H R Wallingford’s Area 401/2 study, is fundamentally flawed. In addition, we note

that the data actual required for this new study can be most probably obtained from the offshore stations at Cross Sand and West Gabbard Wavenet Site (ref. Figure 3, H R Wallingford *Physical Processes Scoping Study* for your present Scoping Study).

Accordingly, we ask you to pursue the following course:

1. Consult the evidence we have supplied you with concerning the flaws to the existing wave model prepared by H R Wallingford for the East Anglian aggregate dredging sites.
2. Determine whether the recommendation made to you by H R Wallingford concerning the need for new hydrodynamic data for the East Anglian Regional Environmental Assessment should, or should not, be accepted.

In the light of the above, we ask you to supply us with the full reasoning of your decision once it has been made.

Yours sincerely

S. D. Eades
On behalf of
MARINET.
Friends of the Earth Local Groups.