



Marine Information Network

Allington House
Allington
Chippenham
Wiltshire SN14 6LN
Tel. 01249 653972

24th September 2005.

For the attention of: Dr. Andrew Bellamy, Resources Manager, United Marine Dredging Ltd,
UMA House, Shopwhyke Road, Chichester, West Sussex PO20 2AD.

Dear Dr. Bellamy, Aggregate Dredging Licence Application, Areas 458 and 464,
West Bassurelle, Eastern English Channel.

Thank you for your letter dated 9th March 2005 which provided your company's comments upon our observations, submitted 22nd July 2004, to the Office of the Deputy Prime Minister (ODPM) regarding your company's marine aggregate dredging licence application for Areas 458 and 464, West Bassurelle, English Channel.

We have now had an opportunity to read your company's original Environmental Statement, dated June 2000, and the two reports of your consultant, Marine Ecological Surveys Ltd, titled *Benthic Ecology Areas 458 and 464 (West Bassurelle), December 1999* and *Benthic Resources Impact Assessment Areas 458 and 464 (West Bassurelle), January 2000*. We are grateful to you for the provision of this information.

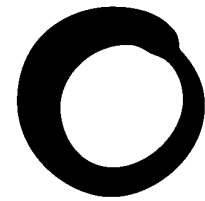
In your letter of 9th March 2005 you sought to answer the reservations and objections we had raised with ODPM, and we would now like to take the opportunity to respond to the answers which you have provided.

We advise that we will be submitting this further response to ODPM under the Government View procedure in relation to your company's licence application for Areas 458 and 464.

Impact on Benthic Community.

In our submission of 22nd July 2004 we stated that our principal concern is that the assessment of the impact of dredging on the benthic community (marine life living on or in association with the seabed) has not been properly assessed, both in terms of the immediate location where dredging will occur and in terms of the wider ecological structure of the eastern English Channel.

We also stated that our concern is drawn from two quarters. Namely, the description of the benthic community recorded in the Regional Environmental Assessment and, secondly, from the



**Friends of
the Earth**

details of the Pre-dredge Monitoring Programme outlined by your company in the Application Status Review, December 2003.

Whilst we have now had an opportunity to read the benthic assessment undertaken by your consultant, Marine Ecological Surveys Ltd, and whilst we have now had the opportunity to establish that a number of the monitoring programmes outlined in the Pre-dredge Monitoring Programme are, as you state, referenced factually to baseline work and surveys recorded in the Environmental Statement dated June 2000, we do retain concerns in a number of areas.

These concerns are as follows.

1. The Regional Environmental Assessment, January 2003, states (section 4.4.7):

“The benthic communities of the east English Channel are considered to be climax communities that have developed under relatively stable conditions, albeit with intensive fishing activity in some areas. These communities are controlled by biological interactions and are dominated by slow growing, long-lived species. They are characterised by a high species diversity and evenness and, generally, there is no single dominant species. This, however, means that the effects of any significant disturbance will persist. Slow growing, long-lived organisms such as brittlestars are particularly sensitive to the disturbance and smothering that would be associated with certain dredging processes. Other species, such as Sabellaria spinulosa, are of importance because the reef-like structures that can be built by this worm comprise complex habitats that support a wide range of dependent species. Although Sabellaria spinulosa occurs throughout the area, there are no records of any reef-like structures of this species and it is considered unlikely that they constitute habitats of conservation importance within the ECR.

Brittlestar beds have been recorded in high density within the study area. These species are slow moving and their dense aggregations mean they are prone to disturbance. Brittlestar beds have been mostly recorded in areas of coarse sediment and strong currents. They are relatively intolerant of high sedimentation rates. Disturbance or loss of the brittlestar beds could have potentially damaging effects upon the rest of the benthos. These beds are considered to be an interest feature of marine SACs and it is believed that large beds may have significance in terms of ecosystem function.

In the absence of macrophytes [plants and seaweeds], the sessile benthic epifauna may be highly important in terms of increasing habitat complexity and biodiversity. These include erect colonial species such as hydroids Hydrallmania falcata and Obellia sp. As noted in Area 473 (Emu, 2002). These species may be important in the settlement and development of scallop spat (an important commercial species in the east English Channel). Being sessile these species are vulnerable and sensitive to disturbance, especially scouring and smothering.”

We observe that your Environmental Statement of June 2000, Benthic Reports of December 1999 and January 2000, Application Status Review of December 2003 and your letter of 9th March 2005 display the following deficiencies:

- They provide no comprehensive assessment of the impact of dredging on the climax benthic communities which are considered by the Regional Environmental Assessment to be of special importance and a notable feature of the eastern English Channel.
- They provide no comprehensive assessment of the impact of dredging on the Brittlestar communities which have been recorded in high density within the study area, and whose

disturbance or loss could have potentially damaging effects upon the rest of the benthos due to the belief that large beds of brittlestars may have significance in terms of ecosystem function.

- They provide no comprehensive assessment of the impact of dredging on sessile benthic epifauna, such as hydroids [a class of marine animals, colloquially known as Sea-Firs, which take on the outward appearance of a plant or flower], which play a key role in increasing habitat complexity and biodiversity and which, in the eastern English Channel, are believed to be important in the settlement and development of scallop spat – an important regional fishery.

Your letter of 9th March 2005 states that when it comes to this assessment of impact on the benthic community, and indeed potential habitats and dependent species identified under the EU Habitats Directive, “JNCC and DEFRA *are* [your emphasis] in possession of all the relevant documents and we have responded to them regarding any outstanding benthic issues as and when these have been raised.”

We observe:

- These documents referred to above are **not** listed in any published document or correspondence with ourselves. Therefore these documents are **not** in the public domain. Given that these documents purport to address the crucial issues we have identified, this failure to place these documents in the public domain is, in our opinion, unacceptable.
- There is currently no evidence that the benthic issues we have raised have been addressed in your discussions with JNCC and DEFRA; and, if they have been raised, that they have been satisfactorily resolved. This is, in our opinion, unacceptable.

Accordingly, we recommend that no decision regarding the issuing of the licence for Areas 458 and 464 under the Government View procedure is arrived at until these issues on the impact on the climax benthic communities, brittlestar communities and hydroid communities are clearly researched, reported upon and placed in the public domain, and clearly shown to be of no concern.

2. Smothering of the Benthic Community by the Plume of Sediment and Discarded Material.

Your letter of 9th March 2005 states “JNCC and DEFRA have raised the issue of sediment dispersion In part, the issues have been addressed by the HR [Wallingford] studies . . . this predicts dispersion of sand and silt in a model whose predictions will be tested by detailed monitoring on a “type” area in the region. The area dredged will be minimised over the region whilst the model is being tested to militate against larger than predicted effects”.

We observe:

- We welcome detailed monitoring of the HR Wallingford model. However, as we observed in our letter of 22nd July 2004 to ODPM, it is the proposal of the applicant (UMD Ltd) to carry out this plume study only during the first year.

Your letter of 9th March 2005 provides no statement to show that monitoring will extend beyond the first year. This is significant because aggregate extraction will only be 1.5 million tonnes in the first year, but will rise to 3.9 million tonnes per annum by year five, and may reach 10 million tonnes per annum during years 6 to 15. Therefore the plume and deposition rate during year one will be untypical of subsequent years. This is, in our opinion, unacceptable.

Further, your letter of 9th March 2005 advises that the plume study will be undertaken in a “type” [your terminology] area in the region. Therefore the plume study proposed will not actually take place in or be connected with Area 458 and 464. Given the sensitive benthic nature of the area, and the particular bathymetry of the area (the Northern Palaeovalley which lies between Areas 464/1 and 464/2) and the variability of currents, this failure to locate the plume study in the dredged area is, in our opinion, unacceptable.

Further still, as we identified in our letter of 22nd July 2004, the volume and amount of sediment which will be discarded by the dredger, and thus constitute the plume, is not quantified in the original Environmental Statement of June 2000 or in the Application Status Review of December 2003. This volume of returned material will depend on the sand and gravel mix on the seabed at the dredge site. The Environmental Statement does not, apart from a general description, record the precise nature of the sand and gravel mix on the seabed. Therefore, the exact volume of material which will be present in the plume remains an unknown and undeclared quantity. This is, in our opinion, unacceptable.

- With regard to the HR Wallingford studies, we advised you that HR Wallingford’s report EX4731, published in February 2003, and titled “*The Physical Environment and the effects of Dredging: East Channel Region*”, observes (ref. page 26):

“The deposition of large quantities of mobile sand in and around the dredged areas, as a consequence of screening operations, may have a number of effects on the physical environment. The main process of concern is that a layer of sand will travel over, and settle upon, areas of the seabed outside the areas actually dredged, and perhaps even outside the ECR itself. If such a layer is thin and remains only briefly, then its effects on the seabed, and its flora and fauna, will be modest. If however the depth of the layer is greater, and/or if it is long-lived or even permanent, then greater environmental changes would be expected, especially if the affected area of the seabed is not naturally covered by sand.”

This is a clear statement of the issue. In parenthesis, we would note that it is particularly relevant to the assessment of impact on the brittlestar and hydroid benthic communities which, we have observed, have not been undertaken.

However, the key section in HR Wallingford’s Report EX4731 [supplied by UMD Ltd in the form of a Technical Report supporting the licence application for Areas 458 and 464] is, as we observed in our letter of 22nd July 2004, as follows:

“Evidence for an existing flux of sand through the ECR is sparse, although the tidal currents are certainly strong enough to transport it. It therefore seems likely that the sand deposited on the seabed following the screening operations will be mobilised and subsequently be transported away from the dredged areas.

However, providing quantitative predictions of the depth and duration of any sand cover of the seabed outside the dredged areas, requires the development and application of complicated modelling methods. This type of prediction was outside the scope of this study.”

It is therefore clear to us neither the Environmental Statement nor the Application Status Review have been in a position to assess the impact of the plume and the deposition of discarded material on the benthic community in the eastern English Channel and, given the deficiencies in the proposed plume monitoring during the operational stage of the licence, this issue of plume impact and sediment deposition remains wholly unresolved.

Your letter of 9th March 2005 provides no evidence for us to alter our opinion in this regard.

Accordingly, we recommend that no decision regarding the issuing of the licence for Areas 458 and 464 under the Government View procedure is arrived at until these issues of plume impact and sediment deposition with regard to the benthic communities in the eastern English Channel are clearly researched, reported upon and placed in the public domain, and clearly shown to be of no concern.

Pre-Dredge Monitoring Programme.

Having now had an opportunity to read the Environmental Statement of June 2000 and the Benthic Reports of December 1999 and January 2000, we accept your statement in your letter of 9th March 2005 that “For the avoidance of doubt, benthic, bathymetric, side scan sonar, seismic and archaeological surveys *have already been undertaken as part of the ES* [your emphasis]”.

Accordingly, we ask that you accept our apology for any misunderstanding in this regard.

Nevertheless, we must observe:

- The Application Status Review states (ref. Section 8, page 116) that “thresholds” will be developed and agreed with DEFRA, CEFAS and ODPM for key issues prior to dredging commencing.

In our letter of 22nd July 2004 we observed that this concept of “thresholds” is not defined, and that their purpose and function is not explained.

We asked that these “thresholds” be defined and circulated for public consultation.

Your letter of 9th March 2005 states “With regard to thresholds, these form part of the methodology of the wider regional monitoring program currently being formulated by applicants in the region in consultation with JNCC, CEFAS and DEFRA.”

With respect, we have to restate that your reply does not provide us with the definition we requested, nor a clear statement of their purpose and function. Further, their formulation involves no public consultation.

Accordingly, we recommend that no decision regarding the issuing of the licence for Areas 458 and 464 under the Government View procedure is arrived at until the concept of thresholds in the pre-dredge monitoring programme is clearly defined; their purpose and function are clearly explained; and, their formulation has been arrived at through public consultation.

Monitoring During the Operational Stage.

In your letter of 9th March 2005 you state that you do not agree with our statement made in our letter of 22nd July 2004 to ODPM that benthic recovery rates [following the cessation of dredging] are “. . . a grossly under-researched subject.”

To support your position you state that there are now several studies, including the *Assessment of the Rehabilitation of the Seabed following Marine Aggregate Dredging, Boyd et al, 2004, CEFAS Technical Report 121*.

We observe:

- To our knowledge, CEFAS Technical Report 121 is the only study that has looked at a wide selection of heavily dredged sites following the cessation of dredging in order to determine benthic recovery rates.
- CEFAS Technical Report 121 records that where dredging has been intense the recovery rate is likely to be greater than ten years, and that in each of the sites studied by CEFAS where intensive dredging had occurred the fauna remained in a perturbed state.
- CEFAS reported that its findings in Technical Report 121 appear to conflict with a small body of case studies which together suggest that substantial progress towards restoration of the fauna could be expected within two-three years following the cessation of marine sand and gravel extraction.
- CEFAS reported that Technical Report 121 had difficulty in making clear statements about cause and effect with respect to the impact of aggregate dredging on the benthic community because the baseline environmental data, contained in the original Environmental Statements relating to the licence areas, had not been thorough and collected in a comprehensive manner.

Accordingly, we believe we are warranted in making the statement that benthic recovery rates are and remain a grossly under-researched subject. For this situation to change, the original Environmental Statements have to be undertaken in a fully comprehensive manner, and the monitoring programmes (following the commencement of dredging through to an extensive period following the cessation of dredging) have to be detailed, thorough and comprehensive in order to inform both present licences and future licences.

It is for these reasons, highlighted by the findings of CEFAS Technical Report 121, that we have made the recommendations [above in bold] regarding the determination of the licence under the Government View procedure for Areas 458 and 464. And, it is for these reasons that we do not believe that a licence for Areas 458 and 464 should be granted until these matters have been satisfactorily addressed and resolved by the applicant.

We would be pleased to receive your further comments, and we will endeavour to assist in any way we can.

As advised earlier, a copy of this letter has been forwarded by us to the Office of the Deputy Prime Minister.

Yours sincerely

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