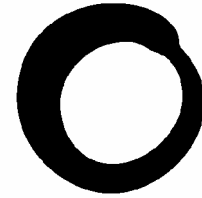




Marine Information Network  
[www.marinet.org.uk](http://www.marinet.org.uk)



**Friends of  
the Earth**

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18<sup>th</sup> February 2006.

For the attention of: Matthew Louis, Planning Directorate, Minerals and Waste Division,  
Office of the Deputy Prime Minister, Zone 4/B1, Eland House,  
Bressenden Place, Victoria, London SW1E 5DU.

Dear Mr. Louis,        Application for Government View : Area 401/2, Licence Renewal.

Thank you for your letter of 16<sup>th</sup> January 2006 in which you advise that your Office is now seeking confirmation as to whether the concerns expressed about the Area 401/2 licence renewal application have been resolved, and whether any unresolved concerns remain.

The short answer to your question is that MARINET still has substantial concerns, and that these have been expressed to the applicant's consultant, Emu Ltd, and that these remain unresolved.

To summarise the documentation, briefly:

1. Following a reply from Emu Ltd, dated 29<sup>th</sup> July 2005, to our concerns which we expressed in a letter dated 24<sup>th</sup> March 2005 during the earlier public consultation, we wrote a further letter dated 22<sup>nd</sup> August 2005 to Emu Ltd explaining the concerns that we still have despite their response of 29<sup>th</sup> July 2005.

We have attached a copy of this statement of unresolved concerns, dated 22<sup>nd</sup> August 2005. The company has not responded to this statement of 22<sup>nd</sup> August 2005.

We also informed your Office of our statement of 22<sup>nd</sup> August 2005 in a letter to your Office dated 21<sup>st</sup> September, copy attached.

2. Following the failure of Emu Ltd to respond to our statement of 22<sup>nd</sup> August 2005, we wrote further to Emu Ltd on 30<sup>th</sup> October 2005 to ask them to respond, and also to request additional information about data relating to the EIA's wave model. A copy of this letter is attached.

Once again, Emu Ltd did not respond, either to our letter of 22<sup>nd</sup> August 2005 or our letter of 30<sup>th</sup> October 2005.

We also wrote to your Office dated 23<sup>rd</sup> November 2005, copy attached, to ask whether your Office possessed the wave model data requested by us from Emu Ltd and, in addition, to ask

whether your Office possessed the data about the amount of aggregate resource available in Area 401/2 which the company had declined to inform us of in their reply of 29<sup>th</sup> July 2005 on the grounds of commercial confidentiality.

Your Office replied to us on 21<sup>st</sup> December 2005 to inform us that your Office does not possess either the wave model data or the amount of aggregate resource available data, both sets of data which we regard as indispensable if a reasoned and rational Government View decision is to be arrived at.

3. Following the failure of Emu Ltd to respond to our letters 22<sup>nd</sup> August 2005 and 30<sup>th</sup> October 2005, we have also written to English Nature on 23<sup>rd</sup> November 2005, copy attached, in order to establish whether an “appropriate assessment” as defined by the Habitat Regulations (ref. EU Directive 92/43/EEC) has been undertaken in respect of the *Sabellaria spinulosa* reefs which are known to exist in Area 401/2 (ref. JNCC Report 325, Natura 2000 in UK Offshore Waters, published 2002). These reefs are an Annex I habitat under Directive 92/43/EEC and, although they are not officially listed as a Special Area of Conservation (SAC) within Area 401/2 at the present time, it is recognised by English Nature and JNCC that potential SAC sites and habitats must be afforded a similar level of protection against damage in order to ensure that they still exist and are available for full protection under Directive 92/43/EEC in the future.

The reply from English Nature dated 3<sup>rd</sup> February 2006, copy attached, identifies the Office of the Deputy Prime Minister as the appropriate authority to conduct an “appropriate assessment” under the terms of Directive 92/43/EEC, and the English Nature reply also states that no such “appropriate assessment” has been undertaken at the present time.

Accordingly, from this documentation, you will see that we have outstanding and unresolved concerns regarding the following:

**Need for the Resource:**

It has not been clearly established that there is a need for Area 401/2 to be re-licenced in order to meet the aggregate needs of the South East region. Alternative land-based sources of supply exist, especially with regard to non-concrete production, and it has not been demonstrated in the Environmental Statement that any shortfall in the overall supply of aggregate for concrete production could not be met by existing marine licences.

In respect of supply to The Netherlands, it is our opinion that The Netherlands is able to meet its own requirements for marine aggregate and it has not been demonstrated that aggregate supplied from Area 401/2 is exclusively for concrete production. There is therefore no need for Area 401/2 to be relicenced in order to meet an export demand from this country.

**Aggregate Resource on the Seabed:**

Whilst the EIA does offer some information in this regard e.g. particle size, it is to be noted that the applicant has not provided information on the thickness of the deposits, or how that thickness may vary with the composition (sand/gravel) of the deposit. The nearest the applicant comes to providing information in this regard is in the January 2005 Environmental Statement, Appendix F, Figure 3.1 where the percentage mixture of sand and gravel in the deposit is described in very general terms, however the information does not extend beyond this very general description.

This is an important matter. If a licence is to be issued, it is essential to know:

1. The size (depth) of the resource so that the reasonableness or otherwise of the extraction rate may be determined.
2. As this is a re-licensing application, it is important to know the rate of depletion of the resource over the previous licence period (10 years) and how this rate of depletion may be affected by the operation of a new licence.

This is essential information when determining whether the site is capable of recovery in biological terms following the cessation of the licence. Without this information, such questions are incapable of being determined.

Moreover it is to be noted that MMG1, in referring to environmental effects, states:

*“It may also be necessary, in appropriate cases, to demonstrate that:*

*(i) an adequate depth (normally at least 50 cm) of suitable material has been left as a ‘capping layer’ to provide a substrate for recolonisation.”* Reference: MMG1, para. 41.

and

*“Dredging should aim to leave the seabed in a similar physical condition to that present before dredging started in order to enhance the possibility of, and rate at which, the seabed recovers physically and biologically to its pre-dredging condition.”* Reference: MMG1, Annex A12.

The applicant has failed to provide this essential information, either in the original EIA or subsequently upon request. We have also verified that your Office does not possess this essential information either.

This absence of information relates both to the original condition of the seabed (i.e. at the time of the commencement of the original licence), and the condition of the seabed that now pertains. This lack of basic information as to the nature of the seabed undermines the assessment of the biological character of the site, and the development of a strategy for its biological recovery.

We do not believe that your Office can make a Government View decision when such information is unavailable from the company, and when such information does not exist in the public domain.

### **Coastal Impact Study:**

It is our view that the coastal impact study is seriously deficient. Our reasoning is:

1. The coastal impact study is dependent upon an accurate wave model.
2. The data for this wave model is seriously deficient. Accurate data is available for the wave model from the wave rider buoy located 7km offshore from Great Yarmouth. However this data was not used for “commercial reasons”. Despite a request from us for an explanation from Emu Ltd of the nature of these “commercial reasons”, no explanation has been forthcoming.
3. The actual data for the wave model has been taken from a land-based meteorological station at Gorleston. The coastal impact study states that such information must be up to date if it is to serve

as an adequate substitute for offshore data, and must be scaled up for wind intensity and corrected for wind direction – see the documentation of this issue in our submissions to Emu Ltd of 24<sup>th</sup> March 2005.

As we observed in our submission of 24<sup>th</sup> March 2005, the land-based data from Gorelston was fifteen years old (i.e. out of date), and there was no evidence in the coastal impact study that the data had been corrected for the increased wind speeds that are experienced offshore, or for variations in wind direction. Hence, the data used to formulate the wave model was totally inadequate to the task, and consequently the wave model itself is fatally flawed.

Emu Ltd did not address these issues in their reply to us of 29<sup>th</sup> July 2005, and have continued to fail to respond in all subsequent correspondence. These concerns and issues remain totally unanswered and unresolved.

4. The wave model, regardless of its above documented deficiencies, has not been applied to an assessment of the impact of dredging in Area 401/2 upon the offshore sandbank system at Scroby Sands.

Scroby Sands serves as a primary line of defence in matters of coastal erosion pertaining to the coastline around Great Yarmouth and further afield. As we have documented, ref. our submission of 24<sup>th</sup> March 2005, Scroby Sands has experienced substantial erosion in the years following the commencement of offshore aggregate dredging in the Great Yarmouth block of licences (i.e. since the 1960s).

Clearly, a pertinent question is why this erosion of Scroby Sands has occurred, and whether this erosion has direct relevance to the nature of coastal erosion occurring along the adjacent coastline of the mainland. As we have observed, ref. our submission of 24<sup>th</sup> March 2005, the coastal impact study has totally failed to address or offer any evaluation of this issue. Accordingly, the coastal impact study is seriously deficient in this fundamental regard.

We have drawn this deficiency in the coastal impact study to the attention of Emu Ltd in our submission of 24<sup>th</sup> March 2005, but they failed to address or respond in any way to this concern in their reply of 29<sup>th</sup> July 2005. Furthermore, Emu Ltd have continued to fail to respond in any manner despite our subsequent letters of 22<sup>nd</sup> August 2005 and 30<sup>th</sup> October 2005. Accordingly, these concerns and issues remain totally unanswered and unresolved.

### **Plume Study:**

The basis of our objection to the Plume Study carried out for Area 401/2 has been:

1. The Plume Study for Area 401/2 is using the Plume Study for Area 254 as a proxy i.e. extrapolating from the conclusions reached regarding Area 254 and then applying them to Area 401/2 on the basis that the two dredging areas are essentially similar.
2. The Plume Study for Area 254 was simply a computer model, using synthesised data, and therefore had no empirical or factually verified basis with respect to its conclusions.

Accordingly, it has been our view that the Plume Study for the re-licensing of Area 401/2 is wholly inadequate. This is particularly so given that Area 401/2 holds a licence that has been operating for several years, and therefore the opportunity to collect empirical data to validate the Plume Study has been readily available. However the licence holder, Hanson Marine Aggregates Limited, has declined/neglected to do so, and now in the absence of this factual data relies on a

computer model used at another site in the Great Yarmouth Block which, in turn, has no empirical data either.

Moreover, given that two-thirds of the dredged material from Area 401/2 is being returned overboard from the dredger (Reference: ES, Appendix E, section 5.2), we find the claim to be most dubious that “*No significant permanent deposition of fine sediment is predicted by the model. Temporary deposition of fine sediment is predicted to be less than 0.5 mm in thickness for both spring and neap tide conditions*” (Reference: ES, Appendix E, section 5.1.(4)).

In reality two-thirds of every tonne extracted is being returned, and the applicant is claiming that the overwhelming majority of this material is being returned to the seabed within 300 metres of the dredged area (Reference: ES, Appendix E, section 6 (i) and (ii)). If this is so, would not the deposited material be greater than 0.5 mm ?

It seems to us that it is most important to verify this assertion, and the actual truth of the matter. Particularly so given that the current Environmental Statement is asserting that the marine benthos outside the immediate dredged locality in Area 401/2 is not being smothered by plume material and that, although the abundance of the benthic community has been reduced during the current licence period, it has still been able to maintain its biodiversity (Reference: EMU letter 29<sup>th</sup> July 2005, page 5, section on Plume Study).

We raised these concerns in our original submission of 24<sup>th</sup> March 2005, but they were not properly answered or addressed in the reply from Emu Ltd dated 29<sup>th</sup> July 2005. As a result we raised these matters, as defined above, with Emu Ltd again in our letter of 22<sup>nd</sup> August 2005 to which we have had no reply.

Accordingly these concerns remain unresolved. In our opinion, the plume dispersion model is failing to accurately predict the deposition character and depth of dredged material returned to sea. We have seen no evidence that its prediction of 0.5mm sediment deposition is empirically accurate, and what evidence does exist suggests the contrary. Accordingly, we believe that no new licence should be granted until the plume dispersion model has been empirically tested and validated.

### **Biological and Ecological Impact:**

There are two issues here. Firstly, the ecological impact and the adoption of an ecosystem-based approach to the management of Area 401/2. And secondly, the impact of dredging on the distinctive and dominant features of the biological community in Area 401/2.

*With regard to the first*, the applicant’s consultant has responded to the criticism of ourselves, and others, that the Environmental Statement lacks a clear definition and deployment of the ecosystem approach to its methodology. In the consultant’s response the following statement is made with regard to the use of the term “ecological structure” and the rate of recovery of the marine community in dredged areas:

‘In responding to this comment it is important to firstly try and define the term “ecological structure”. With respect to fish resources, we define ecological structure as, “*the habitats and species present in an area that are required to support and sustain fish resources at a satisfactory level*”. [italics in the original] Ref. Technical Note 3, page 3, attached to EMU letter dated 29<sup>th</sup> July 2005.

Whilst this definition is helpful, it is still a long way short of the DEFRA definition of the ecosystem approach to environmental assessment and marine management. Namely:

“An ecosystem-based approach to management represents a new and more strategic way of thinking. It puts the emphasis on a management regime that maintains the health of ecosystems alongside appropriate human use of the marine environment, for the benefit of current and future generations. This requires setting clear environmental objectives both at the general and specific level, basing management of the marine environment on the principles of sustainable development, conservation of biodiversity, robust science, the precautionary principle and stakeholder involvement.” Ref, Safeguarding Our Seas, section 1.17.

Accordingly, we remain seriously concerned that the applicant and its consultants are still failing to make a serious attempt to adopt and employ the ecosystem approach.

In particular, the consultant’s reply of 29<sup>th</sup> July 2005 makes no reference to the DEFRA approach, and even when they do apply the term “ecological structure” to an assessment of the impact on fisheries, the applicant and its consultant are still reluctant to accept the primary validity of our observation that an assessment of the impact of aggregate dredging on fisheries can have little validity if the Environmental Statement has not studied the impact of dredging on the meiofauna and phytoplankton [the foundations of the marine ecosystem and its structure] in the locality (ref. page 7 of EMU letter dated 29<sup>th</sup> July 2005).

As a result, we maintain our assertion that the applicant’s Environmental Statement does not record a management policy for the re-licensing of Area 401/2 based on the ecosystem approach (DEFRA 2002), and therefore re-licensing should not be permitted until the applicant has formulated a management policy to govern aggregate extraction in Area 401/2 based on the principles of the ecosystem approach.

*With regard to the second issue* - the impact of dredging on the distinctive and dominant features of the biological community in Area 401/2 - we note the following observations by the applicant’s consultant (Emu Ltd) in their letter and Technical Notes, dated 29<sup>th</sup> July 2005:

1. The full extent of the *Sabellaria spinulosa* communities is not yet known.
2. An additional survey should be designed and undertaken to establish the extent of these communities within Area 401/2, but the survey would be undertaken **after** the granting of new dredging permission. The design of the survey would be made in consultation with JNCC/EN and CEFAS, to whom the results of the survey would also be reported. The report would act a conservation plan in order to maintain these communities at a “favourable conservation status”.
3. In order to protect known communities which have established “reef features” no dredging should occur within 1 km.
4. It is believed that *Sabellaria spinulosa* communities experience a natural cycle of accretion and degeneration, with the result that a community exists in a nascent form before its mature form as a “reef” and, similarly, the exact distribution and location of communities within an area (such as Area 401/2) will vary over time. Hence, the location of communities established in 1993/95 may be different from the location of communities in 2004 and, in turn, may be different again from the location of communities in 2013 [the proposed expiry date of the re-licensing period].
5. It is believed [based on benthic survey results for Area 401/2] that *Ophiura* (brittlestar) communities in Area 401/2 show a correlation in occurrence with *Sabellaria spinulosa* communities

and that, in turn, other species such as starfish, urchins and crabs display a dependence for their presence on brittlestars.

6. It is believed that the *Ophiura* community in Area 401/2 does not form a biotope in its own right; rather, along with a wide range of other marine species, forms part of a biotope based on *Sabellaria spinulosa*.

This list of clarifications is most helpful.

However, it does raise a number of important questions, especially when trying to address the issues of whether there are any “compelling environmental disadvantages” which would disqualify the application to re-licence Area 401/2. These are:

1. Given that the full extent and location of *Sabellaria spinulosa* reefs (an Annex I habitat under Directive 92/43) is presently unknown, should the decision whether to re-licence Area 401/2 be suspended until the full mapping exercise is complete ? Otherwise is there not a real danger that existing reefs may be destroyed, simply because their existence is unknown ?
2. Given the belief that *Sabellaria spinulosa* communities undergo a natural cycle of accretion and degeneration, is there not a real danger that immature reefs (i.e. reefs that are in an earlier stage of formation prior to maturity) may be destroyed by dredging before they actually become “reefs” in accordance with the Annex I definition ? If this is so, is not the destruction of immature reefs contrary to the requirements of a management regime which is seeking to preserve this habitat at a “favourable conservation status” ?
3. Given that *Sabellaria spinulosa* communities are believed to be the key biotope in Area 401/2 (i.e. they support a specific ecological structure composed of a wide range of marine species bound together in a complex structure of dependency), should not the mapping of the full extent of *Sabellaria spinulosa* communities also include a study of the exact nature of this biotope within Area 401/2 and seek to characterise the full extent and nature of other marine species living within this biotope ? If this were to be done, would this not serve as an important first step towards obtaining the knowledge necessary to establish a management regime in Area 401/2 which is based on the ecosystem approach ?
4. If this extended study of the *Sabellaria spinulosa* biotope were to be undertaken (in accordance with the timescale and for the reasons given above), should not this study include an assessment of the meiofauna and phytoplankton present in the biotope given that such creatures are the foundation of the ecological structure of this biotope ? And, is not a proper study of the meiofauna and phytoplankton in this biotope essential to a clear understanding of the ecological structure (“habitats and species in an area that are required to support and sustain fish resources at a satisfactory level” ref. Technical Note 4, Commercial and Recreational Fisheries) necessary to support a sustainable fishery in Area 401/2 and the Great Yarmouth area in general ?

We believe that it is essential that an “appropriate assessment”, as defined for Annex I habitats under the terms of EU Directive 92/43/EEC, is undertaken of the *Sabellaria spinulosa* reefs in Area 401/2, and that this is warranted because of the status of the *Sabellaria spinulosa* reefs in Area 401/2 as identified in JNCC Report 325 (Natura 2000 in UK Offshore Waters, published 2002) and the understanding, recognised by JNCC and English Nature, that the provisions of Directive 92/43/EEC do apply to known Annex I habitats which do not currently possess official Special Area of Conservation (SAC) status in order to ensure that such habitats may survive undamaged so as not to compromise their ultimate availability for SAC status.

Moreover, given that English Nature has identified the Office of the Deputy Prime Minister as the appropriate authority for undertaking such an “appropriate assessment”, we believe it is essential that such an assessment be undertaken **before** a decision on whether to re-licence Area 401/2 is determined. This assessment must establish the full extent and location of the reefs; must recognise that these reefs exist in an immature form and are an essential aspect of the process of determining whether the habitat remains at a “favourable conservation status”; must recognise that immature reefs and their survival are particularly vulnerable because these are not easily recognised unless great care is taken to identify them; must recognise that such reefs are regarded (ref. Emu Ltd’s Technical Note, 29<sup>th</sup> July 2005) as the dominant biotope upon which the biodiversity and many other marine species of the area are dependent; and, must recognise that a study of this biotope must include an assessment of the meiofauna and phytoplankton associated with the biotope because it is upon this trophic level of the biological community that fish resources in the area are dependent.

This issue of the “appropriate assessment” remains unresolved at the present time. It has been defined as the specific responsibility of The Office of the Deputy Prime Minister. In our opinion, no Government View can be issued until your Office has satisfactorily resolved this matter to the satisfaction of all participants in the GV procedure for Area 401/2.

**Conclusion:**

We have provided the documentation behind the unresolved issues that we perceive to exist, and we have defined these issues.

Given the unresolved nature of these issues and, importantly, the failure and apparent unwillingness of the applicant and its consultants to address these unresolved issues and, equally importantly, the fact that the Office of the Deputy Prime Minister is faced in a manner similar to ourselves by the same absence of essential information, we believe that should these matters continue to remain unresolved then it would be appropriate for your Office to determine this application and its Government View by means of a public inquiry.

We note that no Strategic Environmental Assessment of the wider block of Great Yarmouth aggregate dredging licences has been undertaken at the present time, but that the applicant for Area 401/2 has agreed to modify the length of the re-licencing application in order to conform with a Strategic Assessment based on 2013.

We believe that this Strategic Assessment should be commenced now, and that there is no good argument for its delay. Indeed, our continued reservations and list of unresolved issues relating to Area 401/2 argue, we believe, for the immediate commencement of this Strategic Assessment.

Accordingly, we request that any Government View decision on Area 401/2 be made in the context of this Strategic Assessment, and that the decision on Area 401/2 defines the date and nature of this Strategic Assessment for the Great Yarmouth block of licences.

Yours sincerely

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