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Dear Charlotte, Marine Aggregates and Marine Conservation Zones.

On 16th October 2015 we wrote to your Chairman, Andrew Sells, to inform you of our paper titled *Marine Aggregate Extraction – The Need to Dredge : Fact or Fiction?*. We provided you Chairman with a copy, and we enclose a further copy for your retention and study.

Andrew Sells in his reply dated 19th November stated: “ We are working with Defra and the industry to promote the use of sustainable aggregates and we encourage the use of the most efficient techniques of aggregate production, to keep the total footprint of land and seabed affected to a minimum.” Your Chairman also advised us that he had passed our paper to yourself, as Natural England’s Senior Specialist, for additional study.

As our paper explains and you will be aware, the ecological footprint of aggregate dredging at sea is significant. Whether to permit this essential industry to be licensed at sea is therefore a matter which requires very careful assessment, especially when alternative supplies of sand and gravel are available, and when the industry is applying to dredge in Marine Conservation Zones (Kingmere MCZ and Goodwin Sands rMCZ).

Our paper has explained that the Kayasand/Kemco process can utilise waste quarry rocks to produce a manufactured sand which is capable of replacing natural sand in the production of concrete without any reservations as to technical quality. Moreover, replacement of natural sand by manufactured sand is now practiced on an industry-wide basis in Japan and is presently being introduced in Australia. Substitution rates of manufactured sand for natural sand are routinely used at a 50/50 ratio in these instances, and technically can reach an 80%/20% manufactured sand/natural sand ratio. This is therefore significant technology, not only for the construction industry and the aggregate industry but also for the protection of the environment. Waste quarry rocks are abundant.

In your reply and response to this significant technical (and economic) development which has considerable potential for relieving the impact of the construction and aggregate industries upon the terrestrial and marine environments – increasing the efficiency of land-based quarries and reducing the need for seabed dredging – you offer comment in a short paragraph, ref. your reply 12th January 2016.

You state: “Thank you for your letter concerning the use of recycled aggregate and paper on marine aggregate extraction alternatives. We are aware that recycled crushed rock is used where possible as standard industry practice, and are also aware it has some limitations. I believe BMAPA, the industry association, has provided further information on the feasibility of using recycled aggregate.”

May we comment as follows on this short reply by you to this important issue:

1. The term “recycled crushed rock” refers in the language of the industry, which we assume you are employing, to recycled construction/demolition waste (old buildings/infrastructure). It is used, as you correctly observe, wherever possible by the industry. However the production of “manufactured sand” (the Kayasand/Kemco process) from waste quarry rocks is entirely distinct from this, is an entirely different process, and should not be confused.
2. Manufactured sand from waste quarry rocks can substitute substantially for natural sand *in addition* to any product produced from construction/demolition waste and, as we observe, this substitution rate can be higher than 50%.
3. Waste quarry rocks can also be crushed to produce a gravel substitute, a factor not embraced by the Kasand/Kemco process which produces sand. A gravel substitute from waste quarry rocks would be made practical and viable in economic terms if waste quarry rocks were also reused to create manufactured sand
4. Your reply makes no reference to the beneficial consequence for the terrestrial and marine environments if greater utilisation of waste quarry rocks (for manufactured sand and gravel) were employed by the aggregate and construction industries. Our purpose in engaging Natural England (our October 2015 letter to your Chairman and his referral to you) was so that we can precisely address this subject. Therefore we are awaiting your thoughts on this, and we would greatly welcome them.
5. You state that BMAPA has provided further information on the feasibility of using recycled aggregate. Two points need to be made here. Firstly, BMAPA is evaluating construction/demolition waste and *not* waste quarry rocks. Thus BMAPA is not addressing the subject in question. Secondly, we would expect Natural England with its vital interest in the protection of environmental assets to form an *independent* view and to make its own assessment of these matters, and not to rely on BMAPA, a trade association which, with the best will in the world, has a vested interest.

Thus we, and we feel certain you will also, believe that there are important matters which your and your Chairman’s reply have not yet begun to address. We look to Natural England as a champion for the protection of the environment, both terrestrial and marine, and it is this context that we are presently corresponding with you.

We turn now to the matter of Marine Conservation Zones affected by marine aggregate dredging.

You are correct in observing in your 12th January letter that the Kingmere MCZ (West Sussex) application has not yet been determined and is currently in the system. We know that Natural England contributed to the application’s Scoping Report assessment and we assume that Natural England has commented on the application itself.

You observe in your reply of 12th January that: “We would point out that MCZs are not necessarily ‘no take zones’: depending on the features (habitats/species) being protected, certain activities will be able to continue at levels agreed with the regulators.”

This observation is entirely correct. MCZs do not protect “the marine ecosystem as a whole” within the MCZ’s boundaries. We know this because Marinet launched this amendment in Parliament in 2009, and this proposal was defeated at Report Stage in the House of Commons.

However whilst this ‘no take zone’ aspect may no be part of a MCZ designation, it remains incumbent upon the managers of MCZs to make decisions in accordance with the ecosystem approach. The ecosystem approach recognises that all facets, biological and physical, of the environment are inter-related, that actions in one area have consequences in another, and that the *integrity* of the ecosystem as a whole is a primary concern of management.

We have made these points to the Marine Management Organisation in respect of the aggregate dredging application in Kingmere MCZ (Area 453 and 488) and we have published our submission, see <http://www.marinet.org.uk/campaign-article/aggregate-companies-seek-licence-from-mmo-to-dredge-kingmere-mcz>

We believe that the determination of these matters – licences which affect public assets such as Marine Conservation Zones – should be openly considered matters. Therefore may we enquire whether Natural England would be prepared to make available to us the submission which it has made to the MMO in respect of the aggregate licence application for Area 453 and 488 ?

Whilst we are considering marine aggregate licence applications, the aggregate industry has just submitted a new application to dredge Goodwin Sands (Kent) for sand in connection with new construction by the Port of Dover. This application (Area 500) involves a MCZ (Goodwin Sands) which is still at a recommended stage in the designation process, and has therefore not been formally designated.

May we enquire whether Natural England will be seeking to protect this recommended MCZ in a submission to the MMO (regardless of any other conservation status that Goodwin Sands may hold under European or other Regulations)? It seems imperative to us that Natural England acts in such a way, otherwise these assets may be destroyed before protection is conferred. Your reply on this specific point would be much appreciated.

In respect of another MCZ – the Blackwater, Crouch, Roach and Colne Estuaries MCZ (Essex) – Magnox Limited has applied to the Environment Agency for a renewal of a licence to discharge radioactivity, heavy metals and nitrogen compounds into the Blackwater estuary and its MCZ arising from the company’s decommissioning of the Bradwell nuclear power station. This licence application has problems in that whilst it had been granted in 2014 for 12 months, the Magnox company had been unable to complete its discharges during this period and so had applied for an extension but the new application’s Environmental Impact Assessment failed to consider the impact on the MCZ, and had also not correctly completed its “appropriate assessment” under the Habitats Regulations.

As a result the original licence expired in July 2015 and the new license application was not in a fit condition to be issued. Nevertheless, the Environment Agency has decided “not to enforce” the expiry of the old licence and to allow discharges to continue whilst assessment of the impact on the MCZ and under the Habitats Regulations is conducted by Natural England. Latest advice from the Environment Agency is that the new licence application will not be determined until around April of this year. Our own submission to the Agency may be seen at <http://www.marinet.org.uk/campaign-article/radioactivity-from-bradwell-nuclear-power-station-challenges-the-blackwater-mcz>

Failure by the Magnox company’s EIA to consider the impact on the Blackwater, Crouch, Roach and Colne Estuaries MCZ has been of concern to us for two reasons. Firstly, it appears to demonstrate that evaluation by interested parties of potentially adverse impacts on MCZs are receiving low priority. Secondly, given that one of the protected features of the MCZ is the native oyster, *Ostrea edulis*, there

must be a clear suspicion of adverse impact. Hence a full and thorough environmental assessment would be, one would assume, essential.

Once again, we find a Marine Conservation Zone under severe environmental pressure, and there seems no certainty as to its protection.

We do look to Natural England to be a champion of the MCZ designation and the sound management of these zones. Accordingly in the interest of transparency and the public's understanding of the protection of these marine conservation zones, may we ask whether Natural England will make available to us a copy of the submission it has made to the Environment Agency in respect of the current discharge licence application by Magnox Limited (ref. PR2TSE10760/V003 and EPR/DP3217XB/V002)?

We look forward to your attention and reply to the matters we have raised.

May we also advise that we have sent a copy of this present letter to your Chairman, Andrew Sells, so that he may be informed of how matters are being followed up as a result of our letter of 16th October.

May we also advise that we always welcome the opportunity to meet with experienced people such as yourself who have the interest of the marine environment at heart. Should you be able agreeable to this, we would be very pleased to meet with you in Bristol on a date convenient to you.

Yours sincerely

David Levy

Stephen Eades

cc. Andrew Sells