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Dear Mr Reed,

Many thanks for your email, dated 5th August raising your further concerns about the MCZ advice package, with specific reference to seagrass and Studland Bay.

Please accept my sincere apologies for the delay in this response. Some of the details you commented on required me to approach specific individuals within Natural England and I'm afraid this took up time. I hope our responses below will answer your concerns and queries; please allow me to address them in turn.

A. We believe Natural England has incorrectly assessed the risk levels to seagrass at various South Coast locations in the Final Report. In making these assessments they have used information which is out of date, and which subsequent reports have brought very clearly in to question.. We urge that the recent Seastar Survey results together with other reports which are shortly to be published, should be taken in to account before any conclusions are drawn about the status and COs of these areas.

Natural England is confident that at a generic (ie non site-specific) level, the risk assessment applied to *Zostera marina* is accurate. Site-specific information can be incorporated at later stages in the designation process, depending on which sites are progressed. More information on this process is detailed in the letter below.

I understand your concern that the recent published report 'Survey and Monitoring of Seagrass Beds, Studland Bay, Dorset' produced by Seastar Survey Ltd was not considered in the development of our advice. However, I hope that you appreciate the need to have reasonable 'cut off' points in the development of our advice. We have attempted to be open and transparent about the approach we would take when developing our advice by publishing expert reviewed protocols on our [website](http://www.naturalengland.org.uk/ourwork/marine/mpa/mcz/mczprojectadviceprotocols.aspx)¹ in

1 <http://www.naturalengland.org.uk/ourwork/marine/mpa/mcz/mczprojectadviceprotocols.aspx>

December 2011. As set out on page three of [Protocol A2](#)² Natural England made a commitment to use the best available evidence to inform our advice at the point that we began our site assessments. With over one thousand features recommended by the regional MCZ projects collectively, assessments had to begin early in 2012, and for Studland Bay rMCZ the assessment began on the 20th February. Accordingly, as the Seastar report (including in draft form) was published after we began our assessment of the site, it was not used in draft or published format to inform our advice.

There are three reports and one paper that we are aware of that have been or will be published since our assessment of Finding Sanctuary's recommended MCZs. These are the Seastar report, Dr. Simons paper, the MAIA funded report and the ABPmer review.

Please note that on page 342 of our advice we acknowledge there are on-going studies into the impacts of anchoring in the Bay, which will inform the condition of the seagrass after the publication of our advice. You will also see on page 373 that we have noted the existence of the both the VNAZ report and the MAIA report, but that neither report was published, and at the time those data were not available in a processed/useable form.

B. We challenge the vulnerability assessment from the MB0102 sensitivity matrix (“highly sensitive to surface penetration / disturbance” with “high confidence”) in particular as applied to the Studland seagrass beds on the following grounds:

Firstly I'd like to explain a bit more detail behind the development of the vulnerability assessment. The vulnerability assessments, which were undertaken at the regional MCZ project level, were designed to provide a coarse assessment to inform the regional project MCZ selection process and to recommend draft Conservation Objectives to Defra. Defra are planning a consultation on MCZs later this year, and following this, for sites that are designated, Natural England will develop site-specific conservation packages, where there will be more opportunity to incorporate site-specific information.

Vulnerability assessments were undertaken using activity and pressure information in conjunction with sensitivity matrices created by ABPmer and the Marine Biological Association UK (MBA). The MBA have access to vast amounts of literature on habitat sensitivity, a strict data quality process, as well in house experts who lead in seagrass research worldwide. The contractors supplemented the pre-existing MBA feature-sensitivity information with inputs from peer-reviewed literature, grey literature and expert opinion from marine stakeholders, academic experts, and conservation practitioners. Natural England is confident that at a generic (ie non site-specific) level, the risk assessment applied to *Zostera marina* (the only species of subtidal seagrass in the UK) is accurate. In relation to your specific concern I should stress that site-specific information can be incorporated at later stages in the designation process, depending on which sites ultimately go forward.

The MAIA work which has been recently undertaken (contracted to the MBA by Natural England and the Marine Management Organisation and soon to be published) provides a very in-depth and comprehensive literature review and resulting guidance on assessing vulnerability of seagrass across Europe. It also assesses work to date at Studland, has

² http://www.naturalengland.org.uk/Images/protocol-A_tcm6-28374.pdf

resulted in further work, and provides advice on the impacts of anthropogenic activities at Studland. This work will inform management of Studland, and other seagrass beds.

1. The seagrass beds in the MCZ areas along the South Coast, including those at Studland, The Solent, Torbay and Falmouth are composed of eelgrass, *Zostera Marina*, but the assessment was made for seagrass beds in general, and would include species which are known to be much more vulnerable to mechanical damage than eelgrass. It is therefore not an appropriate assessment for the eelgrass beds in these rMCZs

There are two known species of seagrass in the UK, and only one is subtidal - common term eelgrass (*Zostera marina*, and sub species *Zostera marina var. Angustifoli*). The second species, dwarf eelgrass (*Zostera noltii*) is intertidal. Although there are differences in sensitivity between intertidal and subtidal habitats and between species in other countries, learning can also be taken from other species as there are many common themes applicable to a coarse level assessment, so long as the differences in ecology and environmental influence are understood.

2. The assessment was made by “expert judgement” in a working party. There seems to be no documentation or evidence cited to support this judgement, and no record of the membership of the working party. This is not a transparent process.

Initial vulnerability assessments for recommended features within proposed sites were made (using the process described above) by the regional MCZ projects and, where possible, advice and feedback were given on those assessments by Natural England. Information that fed into these assessments and feedback included the generic (ie non-site-specific) information in the sensitivity matrix, which is publically available from Defra. The audit trail and detail on the quality assurance processes that were applied to the development of the sensitivity matrix are detailed in the [ABPmer report](#)³. Information to inform the sensitivity assessments within the matrix came in the form of peer-reviewed literature, grey literature, academic discussion and expertise from industry practitioners. Apart from the generic sensitivity assessment, part of the vulnerability assessment for seagrass in this recommended MCZ states ‘*There is evidence that seagrass is sensitive to abrasion [Collins K, Suonpaa AM, Mallinson, J (2010) The impacts of anchoring and mooring in seagrass, Studland Bay, Dorset. International Journal of the Society for Underwater Technology, Vol 29, No 3]*’.

The vulnerability assessment process endeavoured to be transparent, and an update of the process and progress made was presented to Finding Sanctuary joint working group by Finding Sanctuary in June 2011. Minutes of this joint working group meeting are available at this link:

<http://webarchive.nationalarchives.gov.uk/20120502152638/http://www.finding->

³<http://randd.defra.gov.uk/Default.aspx?>

[Menu=Menu&Module=More&Location=None&ProjectID=16368&FromSearch=Y&Publisher=1&SearchText=mb0102&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description](http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=16368&FromSearch=Y&Publisher=1&SearchText=mb0102&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description)

sanctuary.org/page/resources.html - under 'Joint Working Group Meeting Reports' and 'Joint Working Group Meeting Report June 2011'.

The 'working group' who carried out these vulnerability assessments (for Dorset, and therefore relevant to Studland) were:

Rhiannon Pipkin	Natural England regional lead adviser for Cornwall – attended all southwest vulnerability assessment meetings to try and ensure consistency in approach
Fiona McNie	Natural England regional lead adviser for Dorset
Rachel Waldock	Natural England regional lead adviser for Dorset
Sue Burton	Natural England regional lead adviser for Dorset
	Local Southern Inshore Fisheries and Conservation Authority representative
	Local Environment Agency representative
	Local Marine Management Organisation representative
	Finding Sanctuary project team, including regional project economist

The vulnerability assessment was completed according to the JNCC and Natural England Conservation Objective Guidance

http://www.naturalengland.org.uk/Images/conservation-objective-guidance_tcm6-24853.pdf

Regarding Studland Bay the following steps were completed:

1	First meeting between Natural England and Finding Sanctuary to finalise the approach, and picking which key pressures (from the sensitivity matrix) should be focused on. – Natural England staff involved included Rhiannon Pipkin and Sarah Wiggins, with Finding Sanctuary project team.
2	Finding Sanctuary drafted template sheets for each site, pulling out the key pressures and any information on activity in the sites.
3	Meeting with Finding Sanctuary and local Natural England advisers to carry out a first draft of the vulnerability assessment in order to streamline discussions with relevant authorities. – Natural England staff involved was Rhiannon Pipkin and Fiona McNie.
4	Meeting with Finding Sanctuary, local Natural England advisers, and local Inshore Fisheries and Conservation Authority, Marine Management Organisation, and Environment Agency to continue draft of vulnerability assessment. Time in these meetings was primarily focussed

	<p>on where relevant authorities had key knowledge (e.g. fisheries and water quality).</p> <ul style="list-style-type: none"> - Natural England members consisted of Rhiannon Pipkin, Fiona McNie, Rachel Waldoock, and Sue Burton. - Other group members included the Finding Sanctuary project team, and a representative from the Environment Agency, Marine Management Organisation, and Southern Inshore Fisheries and Conservation Authority.
5	A 'regional sense check' was then carried out by Rhiannon Pipkin, Roger Covey, and the Finding Sanctuary project team to review decisions to that time.
6	A national Natural England Quality Assurance was then undertaken within a workshop in June 2011 to quality control the assessments, bring in specialist input as required, and to ensure consistency between regional assessments. Outputs of this workshop were then provided to Finding Sanctuary.

The timings of these processes for the whole Finding Sanctuary project are as follows:

18 th April 2011	Initial scoping meeting between Natural England and Finding Sanctuary to discuss Vulnerability Assessment (VA) process
28 th April 2011	Dorset preparation VA meeting
4 th May 2011	Dorset VA meeting with partner organisations
6 th May 2011	Devon preparation VA meeting
9 th May 2011	Devon VA meeting with partner organisations
11 th May 2011	Cornwall preparation VA meeting
16 th May 2011	Cornwall VA meeting with partner organisations
31 st May 2011	Isles of Scilly preparation VA meeting
2 nd June 2011	Isles of Scilly VA meeting with partner organisations
26 th May	Regional sense check meeting (due to time constraints this had to be undertaken before the IoS VA meetings had taken place)

3. The Seastar Survey of the Studland eelgrass beds clearly demonstrates that they are NOT "highly sensitive" to anchoring pressures, as no consistent statistically

significant difference was found between anchored and non-anchored areas over two years.

Natural England sat on the steering group for the Voluntary No Anchor Zone (VNAZ) to provide advice to the Crown Estate who contracted Seastar to undertake the work. As Natural England's knowledge developed to fulfil this role (lessons learnt will be presented through the MAIA project), it is clear that the VNAZ research project would not be able to have drawn the conclusion stated above.

Anchoring has been occurring for many years in Studland and therefore comparing seagrass at Studland to seagrass in a natural state would be necessary to draw more robust conclusions. This could have been achieved through a long standing VNAZ area which reached a fully recovered natural state (which would take many years, not just two) or comparison to an area of seagrass nearby without anchoring impact. The results of the VNAZ therefore had limited information, other than a small but statistically significant increase of shoot density within the VNAZ. If this increased shoot density was measured over the next few years and continued to increase, a state of recovery (and therefore previous impact) could potentially be identified. However, the timescale which this project was given does not rule out natural variation and no result can be drawn from this. Due to other constraints the decision has been not to continue with this Seastar research.

4. The indisputable fact that significant anchoring has carried on in Studland Bay and Osborne Bay in the Solent for more than 50 years, yet the eelgrass beds are still present, healthy and probably increasing in extent, is a clear evidential proof that they are NOT "highly sensitive" to anchoring pressures. The same observation applies to other popular anchorage areas with Eelgrass species Z Marina. Evidence over-rides assessments in terms of confidence, especially subjective and undocumented assessments based on the wrong species!

The health of the seagrass beds at Studland has not been looked at scientifically before in order to draw this conclusion. Many complex issues need to be considered before health of seagrass is established. For example, seagrass beds have areas of stable "core" seagrass and areas that fluctuate around the edges annually and therefore an impact to the seagrass bed differs dependent on which type of area is affected. The MAIA report contracted to the Marine Biological Association by Natural England and the Marine Management Organisation provides an in-depth look at these complex issues and applies it to Studland.

5. Natural England has assured us they use the best available evidence to assess the sensitivity of the seagrass feature. They should do so.

We can assure you that we used the best available evidence available to us at the time of the assessment. As mentioned above a 'cut off' point for new evidence is needed when making an assessment such as this. The good news is that we feel the MAIA Studland report provides the most in-depth review of seagrass research and literature to date and

will help us to achieve this, and identified gaps in our knowledge where we need to concentrate in the future.

C. We would like to draw attention to the cautionary note in the executive summary of the source document of the vulnerability assessment for the MB0102 sensitivity matrix (Tillin et al 2010, p.7):

“Care needs to be taken in using the information in the matrix, as it provides only initial broad-brush risk assessments for what are typically complex and site-specific considerations.....

....For many of the habitat FOCl and broadscale landscapes, the sensitivity of the feature varies depending on the specific biotopes within that habitat or landscape that are being assessed. In such circumstances, the MCZ/MPA regional projects may therefore need to obtain better information on the types of features being affected to support decision making.”

The comment on specific biotopes is particularly appropriate. Clearly the authors recognise that drawing firm conclusions from these “initial broad-brush risk assessments” may not be appropriate in many cases, and that is also our view in the present case.

As discussed above, this was only used by the regional MCZ project (Finding Sanctuary) for the site selection process, and for Natural England and JNCC’s recent advice to Government on the proposals and is fit for this purpose. Site-specific information needs to be considered through the next stages of designation, if Studland Bay or any other sites are progressed.

We ask for an urgent review and revision of the COs and risk evaluations for all rMCZs in which species *Zostera Marina* is present.

I understand and appreciate your concern that you consider the information we have used in the report out of date. We are not able to carry out a further assessment at this stage; however our MCZ advice package to Defra is not of a binding nature. Natural England’s understanding is that Defra is committed to take new evidence into account to inform the designation of MCZs. To this effect it has commissioned additional evidence gathering through CEFAS and a review of existing evidence by independent consultants ABPmer. In addition to this, Defra will request that all interested parties provide new or additional evidence as part of the three-month public consultation that will begin in December of this year. The consultation will also be an opportunity for people to review and provide feedback on Defra’s proposals on which sites are designated in 2013, which sites require more evidence and which sites are not progressed. I recommend you take this opportunity to voice your views and submit any evidence you feel will help inform Defra’s decision making. Defra can then consider all new information and evidence together rather than piecemeal (if seagrass was to be considered independently now).

Please do contact me if you have any further questions or comments relating to this letter, as I am keen to ensure that we have an open dialogue.

Kind regards,

Helena

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Natural England