



Historic England

SOUTH EAST OFFICE

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Our refs: P00493396/
P00495533

2nd September 2016

Sent by email and post

Dear Colin and Susanne

Thank you for your email of 19th July, and subsequent email correspondence, providing further information for our consideration regarding geological developments and implications at Pagham Harbour.

We have already advised Arun and Chichester District Councils, and the Marine Management Organisation that because the proposed works have the potential to cause harm to undesignated heritage assets, we think that planning consent and an MMO licence could be granted for the scheme but that this should include conditions to secure a suitable program of investigation, recording, and mitigation works for the historic environment, and this is certainly still the case. We have however reviewed the new information you have sent to us and provide the following advice to you as the applicant's consultants.

Construction of a temporary access causeway

We advised previously that it would be necessary to further investigate the area of the proposed causeway, in order to establish whether there may be any marine heritage assets and archaeological deposits in this area that could be impacted by infilling or sheet piling. We noted that if heritage assets in this area were identified that would be impacted by the causeway creation, then further investigation or mitigation may be required.

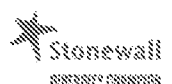


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You have now informed us that since you submitted your planning application, there have been considerable changes to the coastal morphology of the outer seaward areas at Pagham. It is our understanding that the shingle bank has breached naturally and much of the area where the temporary causeway would be created has now become infilled with naturally deposited shingle.

We are therefore in agreement that provided there is no sheet piling in this area, it is unlikely that marine heritage assets would be impacted by any additional shingle deposition that may be required to complete the temporary causeway.

Breaching of the shingle spit

In your desk based document ('Managed Breach of Shingle Spit at Pagham Harbour; further information for planning and marine licence') submitted as part of the planning application, you noted the potential for discovery of unstratified archaeological finds within the shingle of the breach area, and suggested that the relevant council officer be informed of any discoveries. As we advised previously, a more formal arrangement would be necessary for this, and an agreed finds reporting protocol would need to be secured as part of any program of works.

We understand that the spit has now breached naturally and artificial manipulation may not therefore be necessary, but should further works be required to enhance or widen the breach, then implementation of a reporting protocol would be appropriate.

Habitat creation - Tern Island Cut

The creation of a Tern Island requires the burial of a concrete structure, identified as part of a 1930's sea defence, and excavation of a 20m wide channel to a depth of 3.5m to isolate the island from predation. We noted previously that the archaeological desk based document you submitted showed significant evidence for Bronze Age, Roman and medieval activity in the area surrounding Pagham. In addition it was identified there are records of maritime and aviation losses at Pagham, the exact locations of which are as yet unidentified. We noted this information collectively indicated significant potential for the discovery of archaeological, geoarchaeological, and maritime artefacts and deposits to be encountered within and around the harbour.

Susanne has sent an additional research paper which was based on augerholes drilled at the northern extent of the harbour. It usefully identified deposit characteristics and likely date of deposits in this area, which helps us predict the potential sequence in the area of the Tern Island cut, but this information is not sufficient to show the area of the cut is archaeologically sterile. In fact the article shows that the buried deposit sequence is likely to be variable across the harbour. For example, in one of the areas examined by the authors, the pre 1910 land surface lay between 0-1m OD, but in the other a thin peat layer at +0.25m OD was found over gravels (perhaps an island within the former harbour?), and this was thought to have accumulated anything up to 2,000 years ago. They also suggest similar deposits, should they occur at c -0.5m OD (i.e. the depth of the cut), could be Late

Bronze or Early Iron Age (based on work in Southampton). It is our view therefore, that evaluation and potential mitigation is definitely needed for the area of the cut.

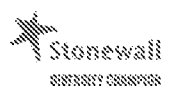


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The bulk of the cut appears to lie outside the area of the former land drain and as such could well preserve intact deposit sequences relating to the earlier evolution of the harbour, and associated human activity. The raised area proposed for the Tern Island might even actually exist because it also lies over an 'island' of higher gravel or brickearth, therefore raising its archaeological potential.

It is our view that the best way to evaluate whether intact deposit sequences related to the evolution of the harbour and associated human activity survive in this area, is through drilling of borehole/auger holes within the area of the proposed Tern Island channel cut. We understand you have concerns regarding the cost and time scale for undertaking such works, but we think this approach is likely to be the most effective and efficient means of evaluation.

This type of investigation would give us a clearer picture of what the deposit sequence and archaeological potential in the area of the proposed cut is likely to be, and therefore what impact the excavation of the cut might have.

Based on the results of this investigation it may be necessary to undertake further investigation or mitigation works ahead of, or as part of, construction of the channel, but equally it might eliminate the need for any further mitigation. Further mitigation could include, as you suggest, excavation of trial pits to investigate archaeological deposits, though the intertidal nature of the location might make this challenging; for example leading to issues of water ingress and section collapse.

We therefore think that boreholes are the best means of investigation and evaluation for this site, and should be undertaken in advance of construction of the proposed Tern Island Channel cut.

Further Recommendations

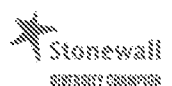
As you are aware Historic England is the Government's advisor on all aspects of the historic environment in England. The above advice is provided to you in order that you may prepare your application so as to sufficiently satisfy the requirements of the National Planning Policy Framework.

We have previously provided advice to Arun and Chichester District Councils and the Marine Management Organisation, for them to take into account when making their decision on this application. We would be pleased to provide further formal advice on this application to these bodies, reiterating the advice provided to you above, but expect to do so upon receipt of a formal consultation request (as amendments/additional information). We therefore recommend that you ensure the information that you have sent to us is submitted to these bodies as additional supporting information for the planning and MMO applications.

I note in the recent emails to which I have been copied in, that there has also been some discussion regarding the appropriate wording for an archaeological condition on the planning applications and Marine Licence. We have already recommended a suitable



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condition but would be pleased to provide further advice to these bodies regarding the wording of the condition if they require this.

I hope this advice is helpful in moving forward your application, but would be pleased to discuss further if required, particularly on how best any archaeological conditions applied to the applications can be fulfilled.

Kind Regards



Rebecca Lambert

Inspector/Assistant Inspector of Ancient Monuments



Information provided for our assessment

Desk based document: 'Managed Breach of Shingle Spit at Pagham Harbour; further information for planning application and marine licence; ABPmer May 2016

Email from Susanne Armstrong, 19th July 2016: 'Pagham application (your ref P00493396) – further clarification' including attachment;

Paper by Cundy et al 2002 'Sedimentary response of Pagham Harbour, southern England to barrier breaching in AD 1910'



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