Our ref: AE/2006/000360/CS-

01/EW1-L01 Your ref:

**Date:** 20 April 2010

Miss Laura Graham

The Planning Inspectorate Temple Quay House 2 The Square Temple Quay Bristol BS1 6PN

Dear Madam

# **Core Strategy: Revised Matters and Issues for the Examination**

In response to the Matters and Issues raised by the Inspector responsible for the Examination in Public of the Rochford Core Strategy, we have the following comments to make regarding question 7 (flood risk):

We feel that the inclusion of the Stambridge Mills site in Policy H1 for high density housing development raises matters of soundness relating to justification, effectiveness and inconsistency with national planning policy.

As mentioned in our previous submission representations, this site is situated adjacent to the tidal River Roach and as such lies wholly within Flood Zone 3, the high risk flood zone as defined in Table D1 of PPS25 and illustrated by the flood maps produced by the Environment Agency. Although the site benefits from flood defences, no supporting evidence has been submitted to provide information on the actual and residual flood risks experienced at this site. There is no up-to-date Strategic Flood Risk Assessment (SFRA) in place for Rochford as is required by paragraph 12 of PPS25, and the previously completed Thames Gateway South Essex SFRA (provided in the evidence base) did not include an assessment of flood risk at this site/in this general location. It should also be noted that this SFRA is now out-of-date since the publication of PPS25 and updates are being produced by the original member councils. Rochford have undertaken a scoping stage, but as yet there are no firm plans for the production of an updated SFRA for their authority area. We have had some pre-application engagement with the promoters of this site but this did not result in any PPS25 compliant flood risk information being submitted to us. We therefore have no way of knowing how this site would be affected should a flood event occur – especially if there was a breach in the defences.

Our previous submission response highlighted that no Sequential Test had been undertaken in support of the submission Core Strategy. Since this response, Rochford District Council have produced 'Core Strategy Topic Paper 1 – PPS25 Sequential Test'. We have reviewed this document and do not believe that the methodology undertaken is robust or that the conclusions reached in the report are logical. We therefore cannot agree with the council that the site at Stambridge Mills passes the Sequential Test. The main issue with their argument is that no alternative land for development exists and that greenbelt is a major constraint to development in the District.

In our submission representation we noted that there was insufficient evidence to justify the Council's underlying assumption that protecting greenbelt land should take preference to avoiding high density development in areas within Flood Zone 3 which would pose risks to life and property. We acknowledged that the general approach of giving priority to brownfield land is in line with national policy within PPS3, however we also highlighted that PPS3 recognises the need to take into account environmental constraints and risks, including flood risk, in setting out strategies for the planned location of new housing in order to achieve sustainable development objectives set out in Planning Policy Statement 1 and that some sites might not therefore be suitable for housing (see paragraphs 38 and 41).

The Sequential Test that has been produced does not attempt to address these concerns and, given the fact that the Core Strategy at Policy H2 also makes provision for the release of greenbelt land for housing in nonconformity with PPG2, we would stand by our representation that there is no justification to support the assumption that developing the brownfield land in the high risk flood zone is the most appropriate course of action given the reasonable alternative of accommodating those housing figures in areas at lesser flood risk. In this sense, we do not feel that the Sequential test has been adequately demonstrated as required by PPS25. There has been no attempt at addressing the Exception Test in this document.

We understand that there is a need to balance the varying national policies to take account of local circumstances, but we would bring the Inspectors' attention to the fact that PPS25, in advocating a sequential test, places flood risk classification and the vulnerability of proposed developments as the primary concern in allocating land for development. Providing development on brownfield land is a secondary strategic consideration that is only of concern when applying Part b) of the Exception Test.

We would also like to note that the submitted Sequential Test has failed to consider the rest of development in Rochford District. Stambridge Mills is not the only area with flood risk in the district and all strategic locations should be assessed against flood risk and justification made if other areas will be affected. Again, an adequate PPS25-compliant SFRA would be required where areas of flood risk are identified.

The lack of flood risk information means that we cannot be certain that the Stambridge Mills site is capable of achieving the requirements of Part c) of the PPS25 Exception Test i.e. that the site can be deemed safe in flood risk terms, potentially making it undeliverable and undevelopable as defined by Planning Policy Statement 3: Housing. The consequences of this are that the Core Strategy is reliant upon the development of this site at Stambridge and without its inclusion the Core Strategy would not be able to demonstrate the delivery of a flexible supply of land for housing as no alternatives for accommodating the planned growth have been explored. This is especially true as the Strategic Housing Land Availability Assessment (2009) Summary Schedule of Sites provided in the evidence base

supporting this submission document shows the Stambridge site to be ideally developed between 2010-2012 and therefore within the five year housing supply required by PPS3.

The lack of a PPS25-compliant SFRA (or site-specific Flood Risk Assessment) and Exception Test and the inadequate Sequential Test document means that we must find the Core Strategy unsound because it is not justified by a relevant and up-to-date background evidence base.

We therefore must also stand by our representation that removing specific mention to Stambridge Mills from Policy H1 and Appendix H1 and build in flexibility to the plan in recognising the potential need to reallocate the balance of housing to more sustainable locations in Flood Zone 1, the low risk flood zone as defined by Table D.1 of PPS25 and illustrated by the Environment Agency's flood maps. This would make the proposed policy consistent with national policy as set out in PPS1, PPS3 and PPS25. It would also remove the need for an updated SFRA and Sequential Test at this stage. We believe that this course of action would still be consistent with Policy GB1 of the submitted Core Strategy.

If this course of action is taken, we would suggest the removal of the fourth paragraph from the policy and the following rewording of the third paragraph:

"The council will seek the redevelopment of brownfield land, including under-utilised employment areas, for appropriate alternative uses, including residential development, subject to meeting the requirements of national policy as set out in PPS1, PPS3 and PPS25. Alternative employment land will be allocated in appropriate locations as identified in Policy ED4".

Should the LPA wish to retain reference to Stambridge Mills, we would expect this Core Strategy to be supported by a PPS25 compliant Strategic Flood Risk Assessment (SFRA) in order to provide clear evidence of the flood risk posed to the district. We would also expect a PPS25 compliant Sequential Test to be produced that addresses all parts of Rochford District and assess all strategic locations for growth whilst balancing the issue of prioritising brownfield development in areas of flood risk when some greenbelt land in areas of lesser flood risk is already being released. An appropriate evidence base on which to establish the likelihood that Part c) of the PPS25 Exception Test can be passed should also be provided. Some rewording of the policy might be necessary following the completion of these studies in order to deem policy H1 to be sound.

Yours faithfully

Miss Carrie Williams Planning Liaison Officer

Direct dial 01473 706007 Direct fax 01473 271320 Direct e-mail carrie.williams@environment-agency.gov.uk

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Yours faithfully

Miss Carrie Williams Planning Liaison Officer

Direct dial 01473 706007 Direct fax 01473 271320 Direct e-mail carrie.williams@environment-agency.gov.uk

Mr Christopher Wickham
Our ref: AE/2008/107025/01-L02
Christopher Wickham Associates
Your ref: CWA/CMW/pl/857

35 Highgate High Street

London Date: 21 November 2008

N6 5JT

Dear Mr Wickham

# SEQUENTIAL TEST AND FLOOD RISK ASSESSMENT STAMBRIDGE MILLS ROCHFORD

I refer to your letter and report received on 30<sup>th</sup> October 2008.

The residential development proposed for this site is classified as 'More Vulnerable' in accordance with PPS25 table D1.

More Vulnerable development should only be permitted in Flood Zone 3 where the Sequential and Exception tests have been applied.

## **Sequential Test**

The Sequential Test must take into account the availability of alternative sites in lower flood risk zones within the Local Planning Authority (LPA) district. Further guidance on the application of the sequential test can be found in the PPS25 Practice guide, section 4.

We note that you have complied a detailed sequential test analysis for this development proposal.

We wish to make the following comments in relation to this assessment of sites.

Paragraph 3.11: Perhaps Flood Risk should be given a greater weighting as this is a Flood Risk Sequential test being undertaken in accordance with PPS25. More detailed criteria could be developed related to the actual flood zone of the development e.g. 2, 3a or 3b or the Strategic Flood Risk Assessment for the area.

Over emphasis on criteria unrelated to flood risk issues could result in justification of

development in flood zones where not appropriate. A number of the criteria chosen for assessment may not be overall constraints to development, e.g. criteria 8: A SuDS scheme could be provided as part of the development through appropriate design.

Issue 1 of the criteria used to assess each site actually forms part of the exception test (para D9 PPS25).

The guidance on the application of the sequential test in PPS25 practice guide does not differentiate between Greenfield and Brownfield development. Only once it has been established that there are no alternative sites available in lower flood risk zones should development be focused on Brownfield land rather than Greenfield, as required by part b) of the exception test.

We note that based on this assessment you have concluded that the Sequential Test has been passed as there are no other sequentially preferable sites within Rochford District within lower flood risk zones.

Not withstanding the above comments, it is for the LPA to be satisfied that the Sequential test has been adequately demonstrated when determining a planning application of this nature. We await confirmation of this matter from the LPA.

The Environment Agency's role is to ensure that the Sequential Test has been applied to applications in flood risk areas. The LPA are responsible for assessing the evidence base and applying the Sequential Test, based on their own detailed background documents including housing figures, build rates and availability of sites.

# **Exception Test**

It must be noted that, in accordance with paragraph 18 of PPS25, the Exception test is only applicable where the Sequential test has been passed. It is for the LPA to determine whether the Exception test applies in this case.

If the Exception test is applicable in this case, it is clear that part b) of the exception test can be deemed to have been met as the development is on previously developed land.

Again, the LPA should confirm that part a) of this test has been passed.

With regard to part c) of the test, we make the following comments on the submitted Flood Risk Assessment (FRA):

### **Flood Risk Assessment**

Thank you for submitting a Flood Risk Assessment (FRA), prepared by Bureau Veritas UK Limited, dated October 2008 in support of the above planning application.

## **Environment Agency position**

We would currently OBJECT to any application submitted as the FRA has failed to meet the requirements of part (c) of the flood risk Exception Test for the following reasons:

#### Reasons

Planning Policy Statement 25 (PPS25) requires the Exception Test to be applied in the circumstances shown in tables D.1and D.3. Paragraph D9 of PPS25 makes clear that all three elements of the Test must be passed for development to be permitted. Part (c) of the Test requires the applicant to demonstrate that the development will be safe, without increasing flood risk elsewhere, and, where possible will reduce flood risk overall. Paragraph D13 requires that compliance with each part of the Exception Test is openly demonstrated.

The application site lies within Flood Zone 3a defined by Planning Policy Statement 25 as having a high probability of flooding. Development classified as more vulnerable is only appropriate in these areas following application of the Sequential Test and where the Exception Test has been applied in full and has been passed. In this instance the submitted flood risk assessment (FRA) fails to:

1. Demonstrate that the development is 'safe' as there is no safe access/egress route from the development to an area of safety following a failure of the defences.

We wish to make the following comments:

## **Breach Analysis**

Details of the breach analysis carried out should be included within the FRA. This should include detail of the parameters used within the model such as the derivation of the tidal curve used within the model and detail of the level used within the model to represent the base of the defence (defence toe) including detail of the survey in which this level was derived. Details of the velocity of flood water across the site as well as the rate of onset of flooding and the expected duration of flooding must also be clearly represented within the FRA to enable us to consider access and egress from the site sufficiently.

Details of depths and velocities across the site should also be provided for the 1 in 1000 year event (inclusive of climate change) as well as the 1 in 200 year event,

## Access/egress

Based upon the flood levels detailed within the FRA, depths across the site would range from 0.89m to 0.95m following failure of the proposed defences. When comparing these levels to Table 13.1 in the FD2320 document 'FRA guidance for new development' the hazard rating is 'danger for most' based upon a velocity of 0m/s. This means that the majority of site users, including the general public, children the elderly and the infirm, would be at significant risk if the defences were to fail.

The large increase in the number of people living in the area resulting from this large development could significantly increase the burden to the emergency services if having to consider rescue of residents, as it is unlikely that residents would be able to safely evacuate themselves from the site. According to the FD2321 document 'Flood Risks to People', 'even large vehicles such as fire engines become unstable in 0.9m of still water'. This means that for this site, there may be problems with rescuing people from the site if required.

## Floor Levels

We note that it is intended to provide residential accommodation on the first floor and

above and that this will mean that all living accommodation will be set above the flood level. The FRA should confirm the level (in metres AOD) of the residential units so that we may compare the floor levels to the 1in 200 year and 1 in 1000 year flood depths across the site. Details of what the ground floor will be used for must also be provided within the FRA.

## **Surface Water Run-off**

The current run-off rate has been calculated at 229l/s which appears to be a little high. We would normally recommend that the IOH124 method is used to calculate the existing run-off rate from the site and this should be considered in any resubmission.

Details of the volume of storage required on the site to accommodate the 1 in 100 year storm, inclusive of climate change must also be provided. For further information on climate change allowances please refer to Table B2 of PPS25.

Once the volume of storage required is known then the method for storing this water should be established and should incorporate sustainable drainage principles. Details of which methods are to be implemented should be provided. If it is intended to discharge surface water into the tidal River Roach then consideration should be given to the volume of storage that will be required for periods when tide-locking occurs should be provided.

#### Fluvial flood risk

Whilst it is agreed that the most serious risk at this site is a result of tidal flooding, consideration should also be given to the fluvial flood risk. We have modelled flood levels for the River Roach which could be obtained to enable a comparison of flood levels and ground levels to be compared. This will ensure that the development will not be at risk from fluvial flooding as well.

## **Topographical Survey**

Unfortunately the topographical survey is illegible and the figures cannot be read. A clear topographic survey should be submitted with any resubmission of the FRA so that we may compare flood levels to ground levels.

## **Hazard Maps**

The site is shown to be within an 'extreme hazard' area according to drawing numbers EMAX0159 and EMAX0159. Any future submission of the FRA should provide details of how this extreme hazard area has been defined, in terms of the depth and velocity of flooding.

## **Maintenance of Defences**

With reference to section 9.2.1 of the submitted FRA, it should not be assumed that we would take on responsibility for the maintenance of the defences over the lifetime of the development and a formal agreement will need to be made to secure the long term maintenance of such a scheme before planning permission can be granted, and as part of any Flood Defence consent which may be applied for.

# **Summary**

As discussed above, there is some further information and clarification we require before we are able to comment fully. However, based upon the information we have seen so far, we are likely to maintain an objection to the proposal on flood risk grounds as it has not been demonstrated that a safe access/egress route can be provided from the site to an area of safety and we do not therefore consider that the

proposal satisfies part c) of the exception test.

Whilst we appreciate that if the defences are improved, the risk to the site will be a residual risk, PPS25 and its practice guide companion requires that this risk is considered. Areas behind defences are likely to be rapidly inundated with water of the defences were to fail. This development would be allowing more people to be located in avoid risk area than currently exist and the primary objective of PPS25 is to locate new development away from areas at highest risk.

#### **Informative**

Please note that under the terms of the Anglian Region Land Drainage and Sea Defence Byelaws, the prior written consent of the Environment Agency is required for any proposed work on, or within 9 metres of the existing flood defences. Consent will also be required regardless of any planning permission which may be granted.

Yours sincerely

Miss Lindsay Hinchsliffe Planning Liaison Officer

Direct dial 01473 706820 Direct fax 01473 271320 Direct e-mail lindsay.hinchsliffe@environment-agency.gov.uk

Mr Christopher Wickham

Our ref: AE/2008/107025/02-L01

Christopher Wickham Associates

Your ref: CWA/CMW/pl/857

Christopher Wickham Associates Your ref: CWA/CMW/pl/857 35 Highgate High Street

London Date: 30 December 2008

N6 5JT

Dear Mr Wickham

# SEQUENTIAL TEST AND FLOOD RISK ASSESSMENT STAMBRIDGE MILLS ROCHFORD

I refer to your letter dated 15<sup>th</sup> December 2008.

# **Sequential Test**

I note your comments on the application on the sequential test in relation to this development.

Our previous comments were offered for information and advice in relation to the detailed report you submitted. It is the role of the Local Planning Authority to determine if the sequential test has been adequately demonstrated and whether they are satisfied with the conclusion reached.

### **Exception Test**

It must be noted that, in accordance with paragraph 18 of PPS25, the Exception test is only applicable where the Sequential test has been passed. We recommend that you get an opinion from the Local Planning Authority on whether this development is likely to pass the sequential test before further work is undertaken, and expense spent, on updating the detailed Flood Risk Assessment (FRA) for this site.

# **Flood Risk Assessment**

We note that full details of the breach analysis, floor levels, surface water management scheme, fluvial flood risk, topographical survey and hazard maps will be provided to us within the finalised FRA. As we have not yet seen the full information it is difficult for us to provide comments on whether there are means of

ensuring the proposed development would be safe.

It is essential that sustainable drainage techniques (SUDS) are considered at an early stage of design to ensure that they are incorporated where possible. If infiltration SUDS are not feasible at this site, we would expect other SUDS techniques, which are not reliant upon infiltration to be incorporated into the design. Please refer to the CIRIA C697 document 'The SUDS Manual' for further information.

As you are aware, consideration of residual risk must be provided within a FRA, as required by PPS25. Whilst we acknowledge that the probability of defence failing may be low, ample consideration must be given to the consequences, as flood risk is a result of both the probability and the consequence. Development located behind defences is at risk from the rapid onset of flooding where there is often little or no warning. By redeveloping this site with residential accommodation, more people will be placed in a high risk area than currently exists. The primary objective of PPS25 is to move people away from vulnerable areas, rather than locate people in them. The PPS25 practice recognises that new development should not be solely reliant upon flood warning as a way of managing residual risk as it is almost impossible for a warning to be given for a breach in flood defences.

We are unable to comment further on this matter until we have received a full FRA for the site. We look forward to receiving the full FRA in due course.

Yours sincerely

Miss Lindsay Hinchsliffe Planning Liaison Officer

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