

Our Ref: 2845/2018-07-13/OA/WCBC/01
Your Ref: P/2018/0367
13 July 2018

Attn: Mr P Forster
Wrexham County Borough Council
16 Lord Street
Wrexham
LL11 1LG

By email: Philip.Forster@wrexham.gov.uk

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Contact: Owen Astbury
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Dear Philip

LAND OFF SHOCKLACK ROAD, THREAPWOOD

I refer to the Natural Resources Wales (NRW) consultation response (Ref: CAS-62635-T8Q1) dated 4 June 2018 in relation to the above planning application.

Within its letter NRW raise two issues with regard to the planning application and submitted Flood Consequences Assessment (FCA) (Ref: 2845/FCA/v1.2/2018-04-26); the assessment of climate change and the proposed mitigation measures for the site.

NRW have been consulted to ascertain clarity within their points raised within their consultation response. A response was received on 10 July 2018, and is attached for reference below.

This letter subsequently seeks to address the outstanding concerns.

Assessment of Climate Change

No detailed modelled flood data was available for the River Dee or any other watercourses (Gwern Y Tô Drain and Flennen's Brook) within the vicinity of the site, with the flood extents subsequently provided on the Development Advice Map (DAM) being derived by the application of its National Generalised Model (i.e JFLOW).

As a result, the ability to numerically assess the impacts of climate change to the site would therefore be considered unreasonable due to the absence of any baseline modelling data upon which to base this assessment. Additionally, due to the scale and nature of the proposed development (i.e. like for like) it would be deemed disproportionate and unfeasible to undertake a hydraulic modelling study for the site which would account climate change.

A pragmatic approach to assessing flood risk at the site was previously agreed with NRW as highlighted with Section 4.4 of our FCA. This is reiterated within the email response received from NRW on 10 July 2018, which indicates that an FCA which provides greater emphasis towards potential mitigation measures at the site would be deemed applicable and appropriate. As such, an assessment of climate change is not deemed to be necessary in this instance.

Proposed Mitigation Measures

Reaffirmed within its email dated 10 July 2018, NRW insisted that the FCA should demonstrate how the finished floor levels and flood resistant and resilient measure proposed within the design of the replacement dwelling would create betterment, in comparison to the existing property on site.

The proposed mitigation measures for the replacement dwelling are presented within Section 5.1.1 and 5.1.2 of our FCA report. This includes the raising of finished floor levels a minimum of 300 mm above the threshold level of the existing dwelling and the incorporation of flood resistant and resilient measures to minimise the entry of water and reduce the damage in the event of the development being inundated.

Once implemented these measures will provide considerable improvement over the existing situation and assist with mitigating flood risk in all flood scenarios, including the climate change scenarios.

Furthermore, in partnership with the proposed mitigation measures outlined above, as highlighted within Section 5.3.1 of our FCA, it has been advised that a Flood Plan should be prepared in consultation with Wrexham County Borough Council's (WCBC) Emergency Planners prior to the occupation of the building. This may be conditioned at the detailed design stage of the proposed development and again will provide betterment when compared to the existing situation.

Finally, when considering flood risk elsewhere, as outlined in Section 5.2 of our FCA, it has been identified that the proposed development would give rise to a negligible increase in the total building footprint of approximately 0.005 ha. Given the aforementioned, and our understanding that there will be minimal modifications (raising/lowering) to surrounding ground levels, it is understood that the proposed development would be unlikely to have any significant effect on flood risk elsewhere.

I trust that the above is sufficient to enable WCBC to support the planning application.

Yours sincerely



Owen Astbury
Graduate Project Manager

Enc. NRW email dated 10 July 2018

From: Beattie, Charlotte [mailto:Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk]
Sent: 10 July 2018 10:20
To: Owen Astbury
Cc: North Planning; Beattie, Charlotte
Subject: FW: Planning Application P/2018/0367 - F.A.O. Owen Astbury
Importance: High

Hi Owen

Apologies for the delay in my response, in providing further advice to our consultation response dated 4th June 2018, as attached above.

From our mapping data sets, the fluvial extents of the Development Advice Map (DAM) C2 for the Gwern y To, Shocklach Lane Worthenbury will be associated with the River Dee and associated drains. The Bangor on Dee modelling study 2012 unfortunately doesn't extend further than Dongrey Hall and there is no detailed modelling of the adjacent drains or watercourses to the site.

We appreciate that this proposed development involves a replacement of an existing (highly vulnerable) dwelling, so providing this is of a similar scale and the refurbishment of the stable block is linked and there are no additional residential units proposed. The key issue, will be for this FCA to demonstrate how the finished floor levels and resistant and resilient measures proposed within the design of the replacement dwelling would create a betterment, in comparison to the existing property at current flood risk.

Demonstrating some allowance in the new floor levels for climate change and sufficient resistant and resilient measures within the design to cope with different sources of flood risk. Mitigation measures in the FCA should include the provision of a property flood plan, where the residents have information to sign up to the free flood warning service available from Natural Resources Wales.

This FCA should in summary, briefly detail how the replacement dwelling development will retain the existing site levels, what the new finished floor levels will be (compared to existing) and describe how these will be achieved.

Further information on flood resilience/resistant techniques is available from the links provided below:

[Preparing for Floods: Interim guidance for improving the flood resistance of domestic and small business properties October 2003](#)

[Blue Pages: Flood Resilience](#)

[Improving the Flood Performance of New Buildings - Flood Resilient Construction](#)

[Six Steps To Property Level Flood Resilience – BRE Guidance for property owners](#)

I hope the above information clarifies what information is required to complete this FCA and demonstrate compliance with TAN 15.

Many thanks

Charlotte

Charlotte Beattie Ba Hons MTPL MRTPI

Datblygu a Pherygl o Lifogydd /Development and Flood Risk

Cyfoeth Naturiol Cymru / Natural Resources Wales

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Yn falch o arwain y ffordd at ddyfodol gwell i Gymru trwy reoli'r amgylchedd ac adnoddau naturiol yn gynaliadwy.

Proud to be leading the way to a better future for Wales by managing the environment and natural resources sustainably.



Croesewir gohebiaeth yn y Gymraeg a'r Saesneg / Correspondence welcomed in both Welsh and English.

Ffoniwch ni ar **03000 65 3000** (24-awr) i roi gwybod am ddigwyddiadau amgylcheddol / Call us on **03000 65 3000** (24-hour) to report environmental incidents