

Maes Y Ffynnon,
Penrhosgarnedd,
Bangor,
Gwynedd
LL572DW

Wrexham County Borough Council,
The Guildhall,
Wrexham,
LL11 1AY

ebost/email:
northplanning@cyfoethnaturiolcymru.gov.uk

25/03/2022

Dear Sir/Madam,

PROPOSAL: CONVERSION OF BUILDING TO DWELLING

LOCATION: 16, DEE COURT, BANGOR ON DEE, WREXHAM, LL13 0AQ

Thank you for re-consulting Cyfoeth Naturiol Cymru / Natural Resources Wales about the above with additional information, which we received on 14th March 2022.

We continue to have concerns with the application as submitted because inadequate information has been provided in support of the proposal. To overcome these concerns, you should seek further information from the applicant regarding flood risk, protected sites and foul drainage. If this information is not provided, we would object to this planning application. Further details are provided below.

Flood Risk

The planning application proposes highly vulnerable development (Residential). Our Flood Risk Map confirms the site to be within Zone C1 of the Development Advice Map (DAM) contained in TAN15 and the Flood Map for Planning (FMfP) identifies the application site to be at risk of flooding and falls into Flood Zone 3 Rivers with Recorded Flood Extents.

Section 6 of TAN15 requires the Local Planning Authority to determine whether the development at this location is justified. Therefore, we refer you to the tests set out in section 6.2 of TAN15. If you consider the proposal meets the tests set out in criteria (i) to (iii), then the final test (iv) is for the applicant to demonstrate through the submission of an FCA that the potential consequences of flooding can be managed to an acceptable level.

We have reviewed the FCA undertaken by Fairhurst, dated December 2021, reference 146521/01 and the additional submitted information. Our advice to you is that the FCA fails to demonstrate that the risks and consequences of flooding can be managed to an acceptable level for the reasons explained below.

We note the additional submitted drawing (Dwg No.1 dated 11th March 2022), however, this does not clearly demonstrate the difference in level between the dry threshold level and adjacent ground level nor are these levels then compared to possible flood level, i.e. what depth of flooding the proposed could experience during a low probability event, as such our

previous comments remain valid. Please also see additional flood risk information in Appendix A.

- *A1.14 Criteria*

The FCA states that based on a review of the surrounding levels, the site is estimated to sit at an elevation of at or around 14.6mAOD. This is not accurate enough to definitively assess potential level of flooding in a breach or overtopping scenario. The submitted Planning Statement suggests that the ground floor is already raised by 3 steps from the pavement. The actual dry threshold level is therefore likely to be considerably higher than 14.6mAOD.

Model extracts indicate the site is impacted in an undefended scenario with flooding expected to a depth of 0.97m during the 1 in 100-year flood event and 1.44m during the 1 in 1000-year flood event.

This does not meet the requirements of A1.14 of TAN15, which states the development (site and building) should be flood free in such a flood event, although this would only be during a low probability undefended/breach scenario.

It is unlikely that dry compliance with A1.14 can be achieved, flood proofing and resilience measures should be adopted to ensure that all vulnerable elements of the residential development are protected.

Any future occupants would need to ensure that the insurance industry is satisfied with the proposals and measures in place. Future occupants should be made aware of the Bangor-on-Dee Community Flood Plan that is in place.

If the Planning Authority is minded to approve the application, then we should be re-consulted on any further submissions.

- *A1.15 Criteria*

We bring your attention to the potential risks posed to occupants during an extreme flood event for access/egress or if a breach or overtopping of the flood defences were to occur. Whilst the probability of this happening is low, the consequences are high. The FCA highlights the predicted depths in excess of 1 metre with velocities of approximately 0.25 m/s in the vicinity during a breach scenario. These risks, therefore, exceed the criteria tabulated in A1.15 of TAN15.

However, we acknowledge that this is for the Local Authority and Emergency Services to consider further as part of the Flood Management Plans for Bangor-on-Dee, as a whole and not specifically in this instance.

We recommend the Planning Authority considers consulting other professional advisors on the acceptability of the developer's proposals, on matters we cannot advise you on such as emergency plans, procedures and measures to address structural damage that may result from flooding. We refer you to the FCA to aid these considerations. Please note, we do not normally comment on or approve the adequacy of flood emergency response plans and procedures accompanying development proposals, as we do not carry out these roles during

a flood. Our involvement during a flood emergency would be limited to delivering flood warnings to occupants/users.

Our advice, therefore, is that the FCA has failed, at this time, to demonstrate that the consequences of flooding can be acceptably managed for the lifetime of the development in accordance with TAN15, in relation to a breach/overtopping/undefended scenario.

If no further information is submitted, or a revised FCA fails to demonstrate that the consequences of flooding can be acceptably managed over the lifetime of the development, then we object to this application.

Please inform us, in accordance with paragraph 11.7 of TAN15, if you are minded to grant permission for the application contrary to our advice.

- *Surface water*

Please note as well as potential fluvial flood risk resulting from a low probability risk of overtopping or breach of the NRW maintained flood defences, there is also inadequate highway/surface water drainage which can affect the area during severe flood events. We understand that the flooding at the frontage of the proposed in the attached photo dated January 2021 is as a result of highway drainage flooding as opposed to fluvial flood risk.

The Planning Authority is therefore advised to consult the Wrexham County Borough Council Lead Flood Authority to ascertain any future drainage improvement works that could benefit the community.

Protected Sites

- Foul Drainage

We note the application site is within the catchment of the River Dee Special Area of Conservation (SAC). As you are aware, on the 21st January 2021, we published an evidence package outlining phosphorus levels for all river SACs across Wales. As part of this package, we issued a [Planning Position Statement](#), in which we advised that any proposed development that might increase the amount of phosphate (or phosphorus) within a river SAC catchment could lead to damaging effects to the SAC. Therefore, such proposals should be screened through a Habitats Regulations Assessment (HRA), to determine whether they are likely to have a significant effect on the SAC. We have also issued [Planning Advice](#) (May 2021) which gives specific advice in respect of foul drainage arrangements for new developments.

This application for the conversion of building to dwelling proposes connection of foul water to the mains sewer. As such, we refer you to our [Planning Advice](#), in particular the section titled 'What does this mean for development proposals involving connection to public wastewater treatment works', which specifies the information that should be provided to support applications which propose connections to public wastewater treatment works.

With regards to the third bullet point, we note from the information available on your Authority's website that Welsh Water in their consultation response dated 31/01/2022 have confirmed that Bangor Isycoed WwTW Wastewater Treatment Works does not have a phosphate permit.

Your Authority will need to take the above into account in your determination of whether the development is likely to have a significant effect on the SAC. Should you determine that an Appropriate Assessment is required, the Applicant will then need to submit whatever evidence they deem appropriate (seeking advice from consultants as may be necessary) to demonstrate no adverse effect on site integrity. You should then consult us on your Appropriate Assessment under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Other Matters

Our comments above only relate specifically to matters included on our checklist, *Development Planning Advisory Service: Consultation Topics* (September 2018), which is published on our [website](#). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests.

We advise the applicant that, in addition to planning permission, it is their responsibility to ensure they secure all other permits/consents/licences relevant to their development. Please refer to our [website](#) for further details.

If you have any queries on the above, please do not hesitate to contact us.

Yours faithfully

Ruth Prichard

Cynghorydd - Cynllunio Datblygu / Advisor - Development Planning
Cyfoeth Naturiol Cymru / Natural Resources Wales

Appendix A

Severe flooding to Bangor on Dee was experienced in the late 1940s and in 1964. Following these events a raised flood defence was built to protect the town. In addition, there are more recent records of flooding. In November 2000 there was extensive flooding throughout the River Dee catchment. This event has been estimated as having a magnitude between the 4% AEP and 2% AEP events. Residents of Bangor on Dee were advised by the police to evacuate their homes during the event and although the raised defence protecting the town did not overtop or breach, material was lost from the embankment. The embankment was then stabilised, raised and strengthened between December 2002 and March 2003 as part of the Bangor-on-Dee Flood defence improvement scheme. More recently, an event in February 2011 flooded the Racecourse although properties within the town were not affected. Since compilation of the 2012 report, other notable events have occurred in the Dee catchment, a photo attached from Jan 2021 event which indicates that the road frontage outside the application location is inundated with floodwater.

There have been NRW works relating to installation of rock bags on a section of the embankment on Overton Road so there are known issues with the embankment here. The need to give regard to breach scenarios is therefore deemed justified when considering highly vulnerable development in Bangor-on-Dee.

Data / model used to inform the FCA

The data/model used is considered best information available, based on results taken from the EA Wales Bangor on Dee Flood Risk Mapping Study 2012 which has been revisited in 2020 and considers a breach of the flood defences at three locations.

The Flood Risk Mapping Study 2012 study established that flooding within the low-lying River Dee floodplain is extensive and affects the Racecourse and vast agricultural areas during all of the events considered by the study. This is confirmed by the observed flood history. The modelling shows that the raised flood defence on the right-hand bank of the River Dee through the town plays a key role in protecting properties within Bangor on Dee from flooding up to the 1% AEP event. For the extreme 0.1% AEP event, sections of the defence towards the downstream extent of the town at The Graig, are predicted to overtop resulting in flooding to 166 properties. In contrast when the defence is removed the town is almost completely inundated for the events considered by the study. The undefended model runs undertaken show that 431 properties are afforded protection by the defence during the 1% AEP event.

Breach scenarios have been considered at three locations and all three breaches considered demonstrate the importance of the raised flood defence and the continued maintenance of the defence to people and properties within Bangor on Dee. The likelihood of a breach occurring is significantly increased by overtopping.

A review of the hydrological assessment from 2012 was carried out in 2020 and predicted a 10-15% increase in flows but the standard of protection, freeboard allowance and overtopping scenarios closely aligned in both reports.