

From: Philip Forster
Sent: 23 October 2018 11:36
To: planning_admin
Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Flood officer response

From: Neil Taunt
Sent: 23 October 2018 10:47
To: Philip Forster
Subject: RE: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Hi Phil,

I have reviewed the FCA and drainage strategy submitted in support of the development.

Only very minimal information has been submitted, but as a connection can be achieved to the nearby watercourse across land within the ownership of the applicant, I am satisfied that a sustainable scheme for the management of surface water should be achievable. In the absence of any detailed information I would request, if permission were to be granted, that the following pre commencement condition be include on any application:

ZH11 (PRE-COMMENCEMENT) COMPREHENSIVE DRAINAGE (SuDS)
114R No part of the development shall commence until a scheme for the comprehensive and integrated drainage of the site indicating provision for foul water, surface water and land drainage has been submitted to and approved in writing by the Local Planning Authority. Prior to the submission of those details, an assessment shall be carried out into the potential for disposing of surface water by means of Sustainable urban Drainage Systems (SuDS) in accordance with the principles of sustainable drainage systems set out in Technical Advice Note 15: Development and Flood Risk, and demonstrating compliance with the Statutory SuDS Standards for Wales. The results of the assessment shall be submitted in writing to the Local Planning Authority. The submitted details shall:

- i) Provide information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site and the measures taken to prevent pollution of receiving ground water and/or surface waters;
- ii) Specify the responsibilities of each party for the implementation of the SuDS scheme, together with a timetable for that implementation; and,
- iii) Provide a timescale for implementation, management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime.

In addition the applicant should be made aware of the following:

The Order commencing Schedule 3 of the Flood and Water Management Act 2010 for Wales was made on 1 May 2018. The legislation, along with the regulations necessary for its implementation, will come into effect on 7 January 2019. This will require all new development that is for more than one property, or has a construction area greater than 100 square meters, will require SuDS Approving Body (SAB) approval

before beginning construction. Transitional provisions have been included so that after the 7th January 2019 SAB approval will not be required for the following:

- New developments that were already granted planning permission before the 7th January 2019, or
- New developments with one or more reserve matters where an application for approval of the reserve matter(s) is made within the period of 12 months after the 7th January 2019, or
- New developments where a valid planning application has been submitted before the 7th January 2019.

It is reasonable to assume that, if the development were to progress, and any associated drainage conditions not be discharged prior to the January 2020 date, then SAB approval would be required prior to the commencement of any works on site.

If you have any questions on the above please let me know.

Many thanks

Neil

From: Philip Forster
Sent: 16 October 2018 13:34
To: Neil Taunt
Subject: RE: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Ah sh/t!!!

Would you mind? If you can err on the side of pragmatic that would be helpful.

Phil

From: Neil Taunt
Sent: 16 October 2018 11:58
To: Philip Forster
Subject: RE: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Hi Phil,

No evidence of either a consultation or comments from me on this one. Would you like some?

Cheers

Neil

From: Philip Forster
Sent: 16 October 2018 11:54
To: Neil Taunt
Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Hi Neil,

I've got a dreadful feeling that you haven't commented on this application.

They've been trying to resolve an issue with Charlotte regarding the 'nearby' watercourse. In the fluvial melee I've forgotten about surface water. Have you provided any comment on this scheme at all?

Thanks

Phil

From: Steve Jones [mailto:dsjonesandco@live.co.uk]
Sent: 12 October 2018 14:10
To: Philip Forster
Cc: James Sumner; Eddie Bowen
Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

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Hi Phil,

At last - please see email from Charlotte below, I assume that it will make it to you through the proper channels but thought I would send it direct for early information.

I am relieved to read that Charlotte has concluded " *The extreme outlines as shown on the flood extent plan HYD331-301 Rev A **do not affect the red line boundaries of the site** . The **finished floor levels of the proposed dwellings should not be any lower than the existing site levels and secured by any planning condition(s) to take account of any uncertainties in the model outputs.***

I trust that on the basis of Charlotte's email, you will be able to complete your report to Planning Committee before you go off on paternity leave and would be grateful if you could confirm that the matter will be reported to the meeting in November?

In the meantime, best wishes on your impending parenthood!

Thanks and best regards,

Steve

From: Dominic Kearney <dominickearney@betts-associates.co.uk>
Sent: 12 October 2018 12:44
To: Steve Jones
Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Hi Steve

So, it looks like we're alright. We'll make sure the FCA says what is required.

Regards

Dominic

From: Beattie, Charlotte <Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>

Sent: 12 October 2018 11:55

To: Dominic Kearney <dominickearney@betts-associates.co.uk>

Cc: North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>

Subject: RE: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Hi Dominic

Thanks for addendum information to the flood consequence assessment (FCA) provided by your letter dated 5th October 2018 (Your reference HYD331/BedwellRD/DK/CB/L01 (planning reference P/2018/0138), as attached above.

From this addendum, the blockage location would appear reasonable and there is some differences to note in the hydrology flows between the original model and updated version. Table 1 suggests the worst case scenario for this site would be the 0.1% AEP extreme event and not the 1% annual exceedance probability (AEP) event with climate change. The predicted flood water levels in Table 1 for the extreme event 0.1% AEP would be significantly lower than the existing site levels of the red line areas of the application site. These levels with a climate change allowance of 20% would not exceed 39.45 metres above ordnance datum (m AOD) at BL05/BL06 or 37.64m AOD at BL03/BL04 m AOD. The extreme outlines as shown on the flood extent plan HYD331-301 Rev A do not affect the red line boundaries of the site. The finished floor levels of the proposed dwellings should not be any lower than the existing site levels and secured by any planning condition(s) to take account of any uncertainties in the model outputs.

The addendum information to the FCA largely addresses the key questions raised in our previous consultation responses (Our references CAS-67513-Y8Y0, CAS-57218-P9R6 and P/2018/0138 Land at Bedwell Road Cross Lanes, Wrexham v3 -P/2018/0138 (Minor) v2 Response NRW: 03590641).

It should be clearly noted that these comments, from Natural Resources Wales are not based on any review of the hydrology calculations or the updated model used for this FCA. There has been no review of the modelling work has been undertaken to date because of the site location within Zone A and it has not been specifically requested by the Local Planning Authority. This addendum information, FCA and surface water drainage proposals for the scheme should be subject to consultation with Wrexham Lead Local Flood Authority.

North Planning Team are Cc. above to ensure a copy of this advice is also provided to the Local Planning Authority (LPA) .

The LPA who will need to be satisfied that this proposed development would not conflict with TAN 15 and there is no modelling review required.

Hopefully the advice provided above is sufficient.

Many thanks

Charlotte

Charlotte Beattie

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Croesewir gohebiaeth yn y Gymraeg a byddyn yn ymateb yn Gymraeg, heb l hynny arwain at oedi

From: Dominic Kearney <dominickearney@betts-associates.co.uk>

Sent: 05 October 2018 15:44

To: Beattie, Charlotte <Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>

Cc: James Sumner <james@bowensonandwatson.co.uk>; Eddie Bowen <eddie@bowensonandwatson.co.uk>; Steve Jones <DSJonesandCo@live.co.uk>

Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Dear Charlotte

Please find our response to your e-mail of 1st October 2018. We trust this addresses your concerns. We are updating the FCA to include this additional information. If you have any queries, please do not hesitate to contact me.

Kind regards

Dominic Kearney BEng(Hons) MSc PhD
Principal Hydraulic Analyst

BETTS HYDRO

Specialists in Drainage and Flood Risk

Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire, CH5 2LY

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From: Beattie, Charlotte <Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>

Sent: 01 October 2018 17:59

To: Dominic Kearney <dominickearney@betts-associates.co.uk>

Cc: North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>

Subject: RE: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Hi Dominic

I thought it would be useful to just summarise the discussions from today and the clarifications required for the FCA.

As advised there isn't unfortunately currently sufficient information in the FCA or appendices to allow us to complete a model review. There is also conflicting information between the FCA and appendices which raises more questions, than clarifications. These key questions in the FCA relate to;

- proposed finished floor levels for the site, what the worst case scenario in terms of flooding extents (1% AEP with climate change and blockage or 0.1%); and
- the similar flow levels from the updated model and difficulties in comparing the survey details provided against water levels and tabled data in FCA and understanding behind the choice of Lower Bedwell bridge for blockage analysis.

It's not clear how or why the finished floor level (FFL) proposed is lower than the existing site levels (41.7-42.2m) and what the existing levels are for the banks of the Clywedog stream are from the survey. The information in appendix J, would suggest the banks are approx. 40.55 or 40.70 m, and bed levels of the stream are 35m but the comparison in the FCA uses bed level details. The FCA therefore, needs to compare the bank levels against the modelled extents and Figure 7 will need to be updated to clarify what it is showing in terms of flooding probability events/extents in relation to the proposed development site.

There are no modelled outlines or modelled results for the 0.1% annual exceedance probability event (AEP) in the FCA and the predicted water levels for the 1% AEP with climate change are very similar to those predicted in 2009. There is a requirement in TAN 15 to consider the 0.1% and the similar flows flags to us that the hydrology perhaps should be considered further, to help us understand whether latest methodologies have been used and how it compares to the details used in the previous model. It's difficult to compare the flood water data from the previous/new model outputs provided in Table 1 and Table 2 of the FCA, and against the existing/new cross sectional details because BL03 and BL04 are only shown partially in Appendix J. The footbridge is unannotated in existing cross sectional details and there is no model extent shown to understand these (old and new) cross sections, relate to each other and explain why Lower Bedwell bridge was chosen for the blockage analysis.

Hopefully this has helped to clarify what information required within the FCA.

The North Planning Team are Cc. above for information.

Many thanks

Charlotte

Charlotte Beattie

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From: Dominic Kearney <dominickearney@betts-associates.co.uk>

Sent: 26 September 2018 11:26

To: Beattie, Charlotte <Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>; North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>

Cc: Steve Jones <DSJonesandCo@live.co.uk>; Eddie Bowen <eddie@bowensonandwatson.co.uk>; James Sumner <james@bowensonandwatson.co.uk>

Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Dear Charlotte

Thank you for your response dated 21st September 2018. We would like some clarification as to why the works undertaken do not provide the information requested in NRW's response of 22nd March 2018 (attached). In that response, NRW highlighted two issues:

- Assessment of blockage
- Latest climate change data

NRW's response explains that these issues arise from the incomplete modelling undertaken in 2009. In response to this we undertook a hydrological analysis (using NRW's preferred method – the FEH statistical method) adding the latest climate change allowance and undertook a blockage analysis of lower Bedwell Bridge (the closest structure to the site where blockage would have the greatest impact). Hence, the two specific issues have been addressed.

I think it would be best if I discussed this with you by telephone. Is there a convenient time when I can phone?

Regards

Dominic

From: Beattie, Charlotte <Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>

Sent: 21 September 2018 13:51

To: Dominic Kearney <dominickearney@betts-associates.co.uk>

Cc: North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>; Beattie, Charlotte <Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>

Subject: RE: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Importance: High

Hi Dominic

Apologies for the delay in my response.

We've double checked the documents in the FCA and found an Appendix A, within Appendix J, which has a short hydrology report/analysis. This doesn't look however to be based on Natural Resources Wales flood estimation technical guidance [GN008](#) and there is very little detail on the modelling work completed for the FCA in relation to the GN0028 checklist.

We acknowledge the red line of the application site is currently located within Zone A, but would suggest the Zone C2 area or area at flood risk within the area outlined in blue could be significantly under represented from changes to the watercourse and/or new Wrexham Industrial Estate link road development. This context of these changes, together with the need to assess the development against the impacts of climate change and blockage, requires the flood risks and consequences to be assessed for the lifetime of the proposed development.

We would strongly recommend some additional information in the FCA is provided to Wrexham Lead Local Flood Authority and the Local Planning Authority to allow them to make an informed view on the proposed development. This should ideally include a completed [GN0028](#) checklist and some further details within Appendix J, which:

- Details of the model extent shown on a location map, model domain and purpose of study vs purpose of previous study;
- Clarifies how the 2007 survey and new survey for the model have been used in the model and how this relates to the partial site survey. Together with cross sectional details of the 6 existing and 12 new structures within the model;
- Provides a brief summary comparison of the 2009 and 2017 hydrology within the model and confirmation of whether this uses the latest methodologies detailed in GN028;
- Details of the rationale behind the choice of Lower Bedwell bridge for blockage analysis for the FCA and not the Hollies culvert(s), Upper Bedwell Bridge and Middle Bedwell Bridge;
- Details about the potential limitations to the scope/purpose of modelling study for the FCA and site, red line boundary and site levels and outputs in relation to TAN 15.

[Guidance Note GN 028](#) provides specific details of what modelling details are required for FCA and proposed developments.

North Planning have been copied in above, to ensure a copy of this is sent to Wrexham Local Planning Authority.

Please let me know if you require any clarifications on the advice provided above.

Many thanks

Charlotte

Charlotte Beattie

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From: Dominic Kearney <dominickearney@betts-associates.co.uk>

Sent: 19 September 2018 10:29

To: North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>; Davies, Daniel

<Daniel.Davies@cyfoethnaturiolcymru.gov.uk>; Beattie, Charlotte

<Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>; Beattie, Charlotte

<Charlotte.Beattie@cyfoethnaturiolcymru.gov.uk>

Cc: Steve Jones <DSJonesandCo@live.co.uk>; Eddie Bowen <eddie@bowensonandwatson.co.uk>; James Sumner

<james@bowensonandwatson.co.uk>

Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW
Response NRW:03590641

Hi Charlotte

I'm just checking if you received my last e-mail and if you could tell me whether you have all the information you need? We anxious not to miss another planning committee date.

Regards

Dominic Kearney BEng(Hons) MSc PhD
Principal Hydraulic Analyst

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Specialists in Drainage and Flood Risk

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From: Dominic Kearney

Sent: 10 September 2018 10:22

To: 'Development and Flood Risk, North & Mid'

<developmentandfloodrisk.northmid@cyfoethnaturiolcymru.gov.uk>

Cc: North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>; Davies, Daniel

<Daniel.Davies@cyfoethnaturiolcymru.gov.uk>; Kirsty Williams <kirstywilliams@betts-associates.co.uk>

Subject: RE: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW
Response NRW:03590641

Hi Charlotte

Yes, you do have the correct version of the FCA. In Appendix J, there is a summary of the hydraulic modelling undertaken (this is what I referred to as the "Hydraulic Modelling Report") which is followed by the Hydrological Analysis (Appendix A of the Hydraulic Modelling Summary from pages 132 to 140 of the document). Pages 142 to 144 of the document, the topographical survey data that was added to the model is provided.

Regards

Dominic

From: Development and Flood Risk, North & Mid

<developmentandfloodrisk.northmid@cyfoethnaturiolcymru.gov.uk>

Sent: 10 September 2018 09:57

To: Dominic Kearney <dominickearney@betts-associates.co.uk>

Cc: North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>; Davies, Daniel
<Daniel.Davies@cyfoethnaturiolcymru.gov.uk>

Subject: FW: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW
Response NRW:03590641

Hi Dominic

Thanks for your email response below regarding the information required in the FCA for Bedwell Road, Cross Lanes.

This email helps to clarify a new model has been used but Appendix J of the FCA v.1.0 dated July 2018 only forms a short summary of the outputs pages (128-130). This doesn't look to include the hydraulic modelling report, hydrology report, the topographical survey.

Can we check we have the correct version of the FCA, please?

Thanks

Charlotte

Charlotte Beattie Ba Hons MTPL MRTPI

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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

----- Original Message -----

From: Dominic Kearney

Received: Thu Sep 06 2018 17:18:51 GMT+0100 (GMT Summer Time)

To: North planning; North Planning Mailbox Queue

Cc: Ds Jones; eddie@bowensonandwatson.co.uk; james@bowensonandwatson.co.uk; kirstywilliams@betts-associates.co.uk

Subject: RE: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Dear Sirs

I have received a copy of the NRW response to Wrexham Council regarding Land at Bedwell Road, Cross Lanes, Wrexham (attached). With regard to "Requirement 1 Submission of additional information in relation to the Flood Consequence Assessment", the information is already included in Appendix J of the Flood Consequence Assessment (FCA).

The FCA is not based on the baseline 2009 model data. For the present submission we undertook:

- A new FEH Statistical Analysis to update the hydrology
- Undertook topographical survey of 10no. new cross sections of the watercourse which were added to the model
- Undertook a blockage analysis of the Bedwell Road bridge
- Undertook a climate change simulation to the current requirements

All this information (hydraulic modelling report, hydrology report, the topographical survey) is included in Appendix J of the FCA.

We therefore request that you remove Requirement 1 from your response.

Kind regards

Dominic Kearney BEng(Hons) MSc PhD
Principal Hydraulic Analyst

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Specialists in Drainage and Flood Risk
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From: North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>
Sent: 06 September 2018 16:07
To: Philip forster <planning@wrexham.gov.uk>
Cc: Dominic Kearney <dominickearney@betts-associates.co.uk>
Subject: P/2018/0138 - Land at Bedwell Road, Cross Lanes, Wrexham - v3 - P/2018/0138 (Minor) v2 - NRW Response NRW:03590641

Annwyl Phil

Amgaeaf ein hymateb i'r cais uchod, ac os oes gennych unrhyw ymholiadau, mae croeso i chi gysylltu â mi.

Cofion Cynnes

Dear Phil

Please find attached our response to the above application, if you have any queries please do not hesitate to contact me.

Kind Regards
Daniel Davies

Tîm Cynllunio Datblygu / Development Planning Team
Cyfoeth Naturiol Cymru / Natural Resources Wales

Ffôn / Tel: 03000 654099

Gwefan / Website: www.cyfoethnaturiolcymru.gov.uk / www.naturalresourceswales.gov.uk

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