

Shropshire Council - Northern Office  
(Oswestry)  
Planning / Development Services  
Castle View Arthur Street  
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Shropshire  
SY11 1JR

**Our ref:** SV/2023/111725/01-L01  
**Your ref:** 23/02170/FUL  
**Date:** 17 July 2023

Fao: Mark Perry

Dear Mark

**FORMATION OF LINK ROAD WITH FOOTWAY AND CYCLEWAY PROVISION  
BETWEEN THE ELLESMERE BUSINESS PARK ROUNDABOUT ON THE A495 AND  
CANAL WAY, INCLUDING ASSOCIATED MODIFICATION TO THE ELLESMERE  
BUSINESS PARK ROUNDABOUT, RECONTOURING AND EARTHWORKS  
THROUGHOUT THE SITE AND FORMATION OF FLOOD COMPENSATION AREAS**

**LAND BETWEEN THE A495 BUSINESS PARK ROUNDABOUT AND CANAL WAY,  
ELLESMERE**

Thank you for referring the above application which was received by us on 6<sup>th</sup> June. At this stage, we **object** to the proposed development and require further information to assess the ecological and flood risk impacts of the development and make the following comments to help progress this application.

**Application Description:** While the application description makes reference to recontouring and earthworks throughout the site and the formation of flood compensation areas, a key part of this includes closing a large, culverted section of the Tetchill Brook and diverting this as an open channel through the southern section of the site. For transparency, we would expect the description of the application to include this.

**Site History:** We understand that the principle of development across this site has already been established, with an outline consent 14/04047/OUT (for a mixed-use development consisting of a new link road, residential housing, a hotel, boating marina, leisure complex, pub/restaurant, holiday cabins and touring caravans with associated infrastructure and access) granted in December 2016.

We provided comment at the outline stage and acknowledged that there could be benefit from both a flood risk and ecological perspective from re-establishing open watercourse along the Tetchill Brook but advised that it would be essential to maintain and replicate existing flood storage and flood mechanisms.

We also provided further comment on subsequent Reserved Matters Applications (19/00187/REM and 19/05445/REM) which we understand to have either been withdrawn or refused.

We note the inclusion of an additional parcel of land to the west of the site that has come forward since the outline consent.

Environment Agency  
Hafren House Welshpool Road, Shelton, Shrewsbury, SY3 8BB.  
Customer services line: 03708 506 506  
[www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)  
Cont/d..

## **Flood Risk**

The application site is large. A significant part of it is located within Flood Zone 3 of the Newnes and Tetchill Brooks and therefore at high risk of fluvial flooding. This is based upon our indicative flood maps for planning.

The Tetchill Brook runs through the site and is culverted for a significant length. The Newness Brook runs in a southerly direction along the western side of the site and is part open channel and part culverted.

Our Flood Map is based on a national generalised mapping technique in this location which does not fully consider structures such as culverts on watercourses.

### **Flood Risk Assessment**

Hydraulic modelling of the watercourses was undertaken as part of the outline application and this has been updated in support of this current proposal. The current Flood Risk Assessment (EMM-BWB-ZZ-XX-RP-YE-0004\_FRA, April 2023) indicates a 1 in 100 year plus climate change 'design flood level' across the site of between **87.15m AOD and 91.12m AOD**.

The higher 2080's allowance of 44% has been added to peak river flows to account for climate change (Severn Middle Shropshire Catchment). This is in line with Climate Change Guidance which advises that for development that is considered appropriate by the LPA but does not accord with the Flood Zone vulnerability categories as set out in the NPPG, the higher 2080's allowance should be used. This would be the case here as part of the site falls within flood zone 3b.

The FRA advises that post development the floodplain will have been rearranged into formalised areas whereby future more vulnerable uses, less vulnerable uses and essential infrastructure would be located upon land at lower risk of fluvial flooding.

The FRA concludes that the proposed alterations to the watercourse and floodplain would not result in any significant flood risk to the site or wider catchment.

The proposed link road is expected to remain dry up to the design flood level.

**Finished Floor Levels for Future Development:** Raising floor levels above the design flood level is the most effective way to ensure the development will not be subject to internal flooding. It is advised that **Finished Floor Levels** (FFL) should be set no lower than 600mm (freeboard) above the 1% flood level plus climate change with flood proofing techniques considered (where appropriate).

We note that in respect of future development (not detailed within this application) the FRA confirms that the finished floor levels of more vulnerable development should be set as a minimum at 600mm above the design flood level, and for less vulnerable development as a minimum at 300mm above the design flood level.

**Action:** *Given the scale and significance of the site for strategic development and the length of time that has passed since the original model was reviewed, we would like to review the current modelling and ask that the model is provided.*

**Flood Storage Compensation and Flood Risk Betterment:** We note that the 1% Annual Exceedance Probability (AEP) plus a lower central 2080's climate change

allowance of 33% has been used to represent the design flood level when considering flood plain compensation.

The FRA calculates that, as existing, the site provides for 39090m<sup>3</sup> of water storage during a flood event. Following reprofiling of the site and the diversion of the Tetchill Brook, it is proposed that land either side of the Brook be set at 86.1m AOD and be utilised as a flood storage area. Post development the FRA calculates that 41175m<sup>3</sup> is provided for, resulting in an increase in on-site floodplain storage of 2085m<sup>3</sup>.

**Action:** *We welcome the overall gain in flood storage but would expect the calculations for such to be clearly demonstrated in tabular form. The FRA should illustrate floodplain storage gain and loss in m<sup>3</sup>, broken down by bands of 200-250mm to clearly evidence that post development the existing flooding regime is replicated or bettered. A flood compensation scheme should demonstrate level for level, volume for volume storage up to the 1 in 100 year plus climate change design flood level.*

We acknowledge the findings of the FRA that post development, there would be a small decrease in flood depths and extent in the eastern portion of the site and upstream. But note that there would appear to be a modest in-channel increase in water levels within the Newness Brook. We accept that this is likely caused by back up from the confluence of the two brooks and are satisfied that this is contained within the channel and does not increase flood plain extents.

We welcome the daylighting of a large section of the Tetchill Brook and encourage the transition to a more natural channel. But note the proposal for three new culvert installations to enable the link road crossing in the east and west of the site and to reconnect the existing off-site culvert leading to the Newnes Brook. We advocate the use of clear span bridges in lieu of culverts as these pose a smaller risk in terms of blockages and conveyance.

**Action:** *We recommend the applicant fully explore whether the use of clear span bridges could be accommodated.*

It is unclear from the submitted detail whether simply daylighting the watercourse along its current route would by itself provide flood risk betterment or whether it is necessary to divert the watercourse as proposed to achieve this. We would encourage further assessment of this.

**Action:** *We encourage an additional modelled baseline scenario of the design flood level which considers the option of daylighting the Tetchill Brook along its current route. This will illustrate if there is flood risk betterment associated with daylighting the watercourse, and allowing it to follow the natural floodplain, particularly in respect of downstream flood levels.*

**Flood Management Plan:** In the event of a blockage of the downstream culvert we note the availability of an overland flow route. While this is a sensible inclusion, there are off-site impacts as a result of such a blockage. It is therefore important that the culvert is kept clear and risk minimised and we would expect the inclusion of a maintenance schedule within the flood management plan.

**Opportunity:** We note the inclusion of the additional parcel of land (site 2) to the western side of the site to enable the connection of the link road to the existing business park roundabout. This may now present opportunities for further flood risk betterment in respect of the Newness Brook.

**Action:** we recommend this be fully explored as part of this application.

**Note:** The Tetchill Brook is classified as an 'ordinary watercourse', which falls under the jurisdiction of the Lead Local Flood Authority (LLFA). Therefore your Flood and Water Management team should be consulted, as the consenting Authority, to confirm that they are satisfied with the proposed works to the Tetchill Brook.

### **Ecological Betterment**

The ecological status of the Tetchill Brook is currently poor. ([Tetchill Bk - source to conf R Perry | Catchment Data Explorer | Catchment Data Explorer](#)). Under the Water Framework Directive, the aim is to achieve good ecological status by 2027. A WFD assessment should be submitted as part of this application and used to inform the design of the channel and related elements.

Opening the channel (deculverting / daylighting) provides opportunity for significant ecological gain (Biodiversity Net Gain provision).

However, there is insufficient assessment of the riparian environment or sufficiently detailed proposals for the diverted watercourse and flood plain to understand what enhancements are to be made.

Habitat and species surveys for the water environment have not been extensive and most seem to be desk based. While records indicate the presence of Otters and Water Voles within 0.9km of the site, no site-specific surveys have been undertaken and assessment of impact of development to both species is limited. Further, there have been no assessments of habitat or impact of development on any potential crayfish populations or fish species.

**Action:** A detailed assessment of the river for habitats, species, geomorphology (within and alongside the water course) and potential impact of development should be provided alongside detailed plans regarding the channel design, banks and creation of the flood compensation/mitigation area referenced within the maps and reports.

**Watercourse buffer zone and flood compensation area landscaping:** we welcome the inclusion of a minimum 8m buffer zone either side of the diverted Tetchill Brook. This will allow for improved water quality, riparian vegetation, and habitats, but will also slow run off into the watercourse. It will also enable access for watercourse management.

**Action:** We would expect to see detailed landscaping proposals for the riparian zone and flood compensation areas as part of this submission. While we accept that landscaping for the wider site can be managed as part of future applications, early establishment of the diverted riparian zone and flood compensation storage areas is key to their success in providing ecological enhancement to the watercourse and local environment.

**Dredging:** We note the comment on drawing C1581-SGI-ZZ-00-DR-C-0515 P1 titled *Tetchill Cleaning* which suggests dredging of an open section of channel of the Tetchill Brook. No evidence has been provided to indicate the need for this. Dredging would be hugely detrimental to biodiversity, fishery and geomorphological interest and could lead to a downgrade of the Water Framework Directive (WFD) for this section of river.

**Culverts:** We encourage the applicant to explore opportunities for open span bridges to enable the road crossings of the brook as opposed to relying on culverts. This would reduce the impact on geomorphology and species which rely on the gravel and bedrock already established within the areas proposed for work.

If culverts must be used, they should include otter passes/ mammal ledges that allow the safe travel of otters/water voles through the culvert in times of high flow. The culvert should also be designed and constructed to allow the free passage of fish.

We note and welcome the intention to bury potential new culverts 600m below the bed level.

**Action:** *Details of the above should be included within the submission to clarify intention.*

**Exclusion of livestock:** we welcome the exclusion of livestock from the Newness Brook as this will help reduce pollution in this area.

### **Environmental Permit**

Any works within 8m or the floodplain of the Newnes Brook, a designated main river, will likely require permission from the Environment Agency in the form of a Flood Risk Activity Permit. We would suggest the applicant consult with the West Midlands Partnerships & Strategic Overview Team at [ps0.midswest@environment-agency.gov.uk](mailto:ps0.midswest@environment-agency.gov.uk)

Works associated with the Tetchill Brook (Ordinary Watercourse) will require consent of the LLFA.

Upon receipt of this reply, should more detailed planning advice be required, through a meeting and/or document review, this may be provided through our cost recovery service.

Yours faithfully

**Emma Millband**  
**Planning Officer**

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