

Eich Cyf/Your Ref: P/2024/1466

Ein Cyf/Our ref: N/A

Dyddiad/Date: 20/11/2025

Gofynner am/Ask for: Cathryn Hughes

Rhif Cyswilt/Contact No: 01978 729639

E-bost/E-mail: flooding@wrexham.gov.uk

Dear Matthew,

Site Address: LAND AT LOWER BERSE FARM, RUTHIN ROAD, WREXHAM, LL14 4HP

**Site Description: OUTLINE APPLICATION FOR ERECTION FOR 1450 DWELLINGS
(APPEARANCE, LANDSCAPING, LAYOUT AND SCALE RESERVED) AND PROVISION OF
LAND FOR PRIMARY SCHOOL**

Thank you for consulting the Lead Local Flood Authority (LLFA) Team in regards to this application. We note that that team have been consulted regarding another layout to this site address, but we have chosen to comment on both sites separately. The LLFA Team is encouraged to see that our comments on the original application have been taken on board by the developer. However, the LLFA has further comments due to the change in site layout and a number of conditions that it would like to propose for this application.

Flood Risk

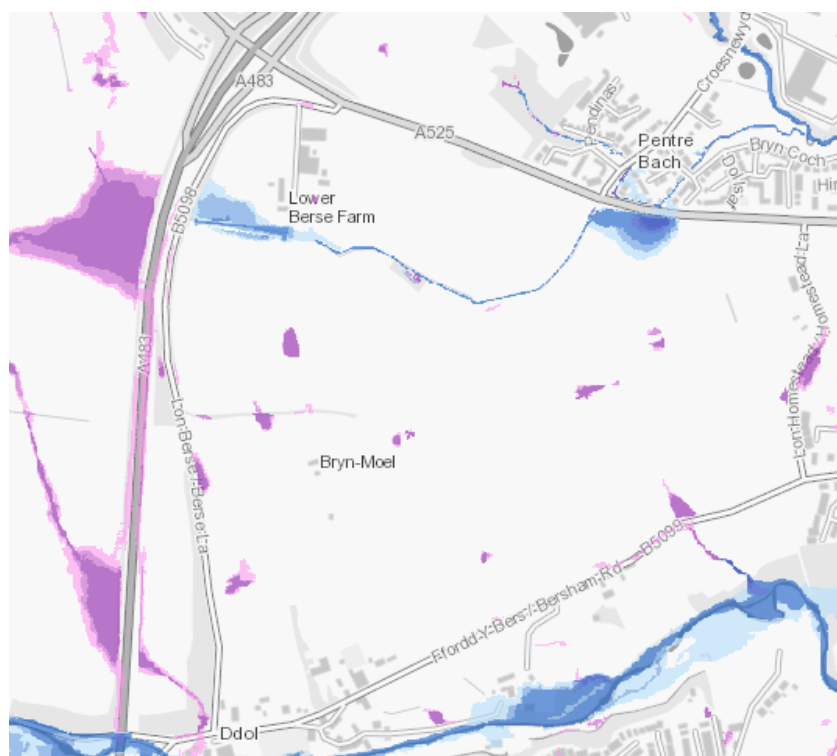


Figure 1: A screenshot of the NRW Flood Map for Planning showing the development site. Pluvial flooding is shown in purple and fluvial flooding is shown in blue.

The LLFA appreciates that the Flood Consequence Assessment (FCA) was written before the update to the NRW flood maps in early 2025. However, we will assess the application on the flood map that is available to us at the time of writing this response. Figure 1 shows the current flood risk map for the site including both pluvial and fluvial sources. It is noted by the LLFA that multiple areas of Flood Zone 3 for surface water flooding are present on site. Whilst the LLFA appreciates that the development site will undergo landscaping, we consider that highly vulnerable development should be avoided in these zones. This is due to the testament provided to the LLFA that groundwater resurgence can occur on site and the shallow groundwater encountered by the developers' own infiltration testing.



Figure 2: The area classified as Flood Zone 3 in the north east of the development. The screenshot has been taken from the NRW Development Advice Maps.

Of most concern to the LLFA is the area of flooding to the northeast of the development site. It should be noted that this area of flooding is both fluvial and pluvial in nature. It is noted by the LLFA that a small area of surface water flooding does occur following most rainfall events, but that this alone does not pose a risk to property or highway infrastructure. The LLFA observe that the risk presented by this area of flooding is greater from the fluvial flooding which occurs when the ordinary watercourse overtops into the northeast corner of the development. It is noted that this area is classified as Flood Zone 3. In larger or more intense flood events, this area of flooding overtops onto the A525 Ruthin Road. Such an event can lead to the internal flooding of up to four properties within the Bryn Coch estate. It is noted that there may be an increase in the amount of water contributing to ordinary watercourses offsite, such as that in the Bryn Coch estate, in the post development blockage scenarios outlined in Appendix G of the Flood Consequence Assessment (FCA).

The LLFA is in agreement with the observations of the developer that the flood risk associated with the north east corner of the development site is due to an undersized culvert under the A525. However, **the LLFA insists that no upgrade should occur to this culvert** as it will displace flood water to the existing culverts in the Pentre Bach Estate and increase the flood risk to existing properties. The LLFA is encouraged to see that the developer intends to preserve and consolidate this flood storage area. This is supported by the LLFA team. However, the connectivity of this flood plain should also be preserved to ensure no detriment to property or highway infrastructure.

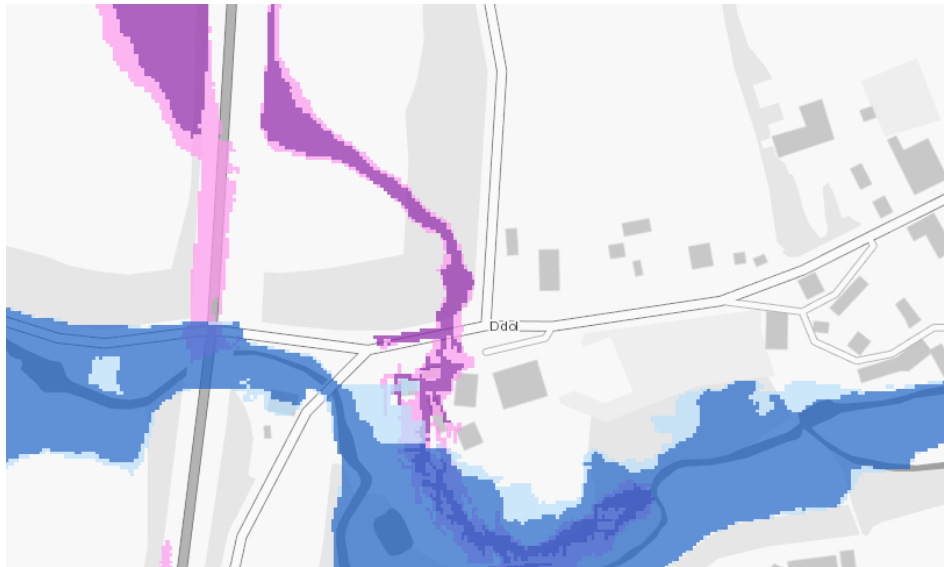


Figure 3: An overview of the NRW Development Advice Map for Planning for the flooding which occurs to the south west of the proposed development.

The LLFA has further concerns about flooding to the south west of the development site as further properties are at risk. This flooding is related to the overtopping of an under capacity culvert and siltation in the culvert on land that we believe the developer will be responsible for. When the water overtops, this has been known to travel down the adopted highway and cause internal flooding to existing residential properties. The LLFA believes that an upgrade to this culvert system should be considered as a part of the application and that a flood storage area should be created. However, even if this upgrade were to occur, the **LLFA would object to any further discharge of water into this culvert beyond a restricted greenfield runoff rate.**

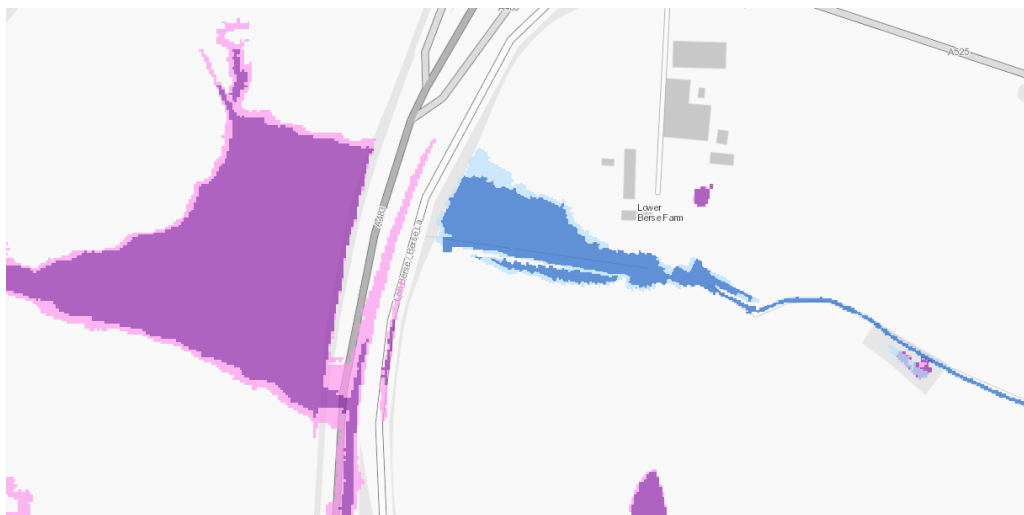


Figure 4: An extract from the NRW Development Advice Map showing flooding in the vicinity of Lower Berse Farm.

Finally, the LLFA would like to draw the attention of the LPA to flooding on the north eastern side of the development. It is understood that this area of the development will be the likely location of Development Parcel H and the associated attenuation pond. The LLFA would request that any development and associated drainage infrastructure is also avoided in the area outlined as a flood zone in the above figure. This is because the connectivity of drainage into the site from the nearby trunk road, the A483, is not well understood and the existing culvert near to Lower Berse Farm is believed to be under capacity. **It is the opinion of the LLFA that the connectivity here should be better understood before the development can obtain outline planning permission** and the ability of the ordinary watercourse to access a flood plain is preserved. It observed by the LLFA

that no changes are proposed to the existing culvert under Lower Berse Farm despite potential capacity issues.

Restrictions of Ordinary Watercourses

It should be noted by the applicant that the Land Drainage Act 1991, as amended by the Flood and Water Management Act 2010, established the LLFA as the responsible risk management authority for ordinary watercourses. As such, any alterations to the ordinary watercourse will be subject to an ordinary watercourse consent from the team. The developer is advised to contact flooding@wrexham.gov.uk to discuss these consents further.

Culverting for Access to A525 Ruthin Road

It is noted by the LLFA Team that the developer proposes an extension to the existing culvert under the A525 Ruthin Road. This access would also be raised to ensure that the access mains flood free. The watercourse would then be connected to its floodplain to the northeast of the site via three 600 mm pipes. In regards to this matter, the LLFA would like to refer the LPA to Wrexham County Borough Council's Culverting Policy which was approved by the Executive Board within the Flood Risk Management Strategy in April 2013. We note that this policy established that WCBC is opposed to the culverting of watercourses unless it is for highways and access purposes.

However, in order for the highways and access exemption to apply, the developer must satisfy the following criteria:

- Reasonable alternatives such as an open span bridge or watercourse diversion have been assessed and discounted prior to consideration for a culvert.
- The hydraulic and environmental design has been fully assessed.
- Appropriate mitigating enhancements to the surrounding environment have been included in the proposal.

Therefore, the **LLFA would object to the further culverting of the ordinary watercourse** until we are satisfied that all other considerations have been made. It is of particular concern to the LLFA that the ordinary watercourse in the northeast of the site is proposed to be culverted between the channel and its floodplain. It is noted that a blockage in this system would increase flood depths elsewhere on and off the development site as per Appendix G of the FCA. The LLFA considers that free flow should be maintained between a watercourse channel and its flood storage area at all times to prevent increased flood risk and overtopping of the ordinary watercourse into attenuation area proposed as a part of the drainage strategy.

Raising of Ground Levels.

The LLFA Team note that there are numerous references to raising ground levels within the Flood Consequence Assessment for this site. The level to which the site is to be raised is not indicated in the report as the application is for outline planning permission. We note that the raising of ground levels will need to be assessed by the LLFA at the reserved matters stage to ensure that no surface water poses a flood risk to existing property or land surrounding the development.

Exceedance Events

It is noted in the Flood Consequence Assessment (FCA) storms in excess of the 1 in 100 years plus 40% climate change allowance event should be permitted to produce temporary shallow depth flooding within access roads and public open spaces. All flood exceedance routes should be clearly shown within an FCA at the reserved matters stage and they will be assessed as a part of the SuDS Approving Body (SAB) application.

SuDS Approving Body (SAB)

The LLFA notes that this development will be subject to SAB approval under Schedule 3 of the Flood and Water Management 2010 as enacted by the Welsh Government on 7th January 2019. To date, the SAB has not yet received any formal engagement with the developer over the drainage strategy. Given the need to phase the construction of the site over a number of years, we would recommend that the developer approaches the SAB via SAB@wrexham.gov.uk for pre-

application advice at the earliest opportunity. The SAB would expect that this development would be submitted as multiple SAB applications.

Drainage Strategy

The LLFA appreciates that this application was submitted before the updated TAN15 was introduced in March 2025. However, there are some key points that the LLFA would like to raise in regards to the suitability of the drainage strategy and its compliance with the Statutory Standards for Sustainable Drainage Systems as published by the Welsh Ministers in 2018.

Standard 1: Surface Water Runoff Destination

In order to comply with the Statutory Standards for Sustainable Drainage Systems, the development must work through the different priority levels of the discharge hierarchy as follows:

1. Surface water runoff is collected for use.
2. Surface water runoff is infiltrated to ground.
3. Surface water runoff is discharged to a surface water body.
4. Surface water runoff is discharged to a surface water sewer, highway drain or another drainage system.
5. Surface water runoff is discharged to a combined sewer.

It is noted by the LLFA that infiltration testing has taken place on site. Infiltration rates are noted to be between 6.35×10^{-3} m/s and 9.80×10^{-6} m/s. The LLFA considers that infiltration should be considered as the primary method of surface water disposal where possible as this will reduce the pressures on the ordinary watercourse and the potential for flooding to occur to offsite properties. It is noted by the developer that permeable driveway and property-level soakaways will be prioritised where possible. However, it is the opinion of the LLFA that wider infiltration features should be considered and maximised where possible to comply with the Statutory Standards.

Despite the above, it is noted that the drainage design is heavily reliant on discharge to surface water bodies. This is understood to include a proposed discharge to the River Clywedog and the unnamed ordinary watercourses which we have previously discussed in this response. The LLFA notes that this will only be accepted at a minimum greenfield runoff rate or lower following the use of a full SuDS management train where evapotranspiration and infiltration losses are maximised. We note that the current proposals of discharge to attenuation pond and through a flow control structure do not satisfy this requirement.

Standard 2: Surface Water Runoff Hydraulic Control

The LLFA notes that no attenuation storage to control this discharge rate can be located within a Flood Zone. It is noted that the pond immediately adjacent to the access off Ruthin Road and that in Development Parcel D would both be located in an area prone to flooding. This will not be permitted in the SAB application process.

In addition to the above, the LLFA does not believe that the current proposal provides enough interception value to be considered acceptable. It is noted that most rainfall events are likely to have some contribution to flow within the ordinary watercourse as grassed attenuation areas will not provide sufficient opportunities for water to be lost from the drainage system.

Standard 3: Water Quality

The LLFA does not consider that sufficient water quality treatment can be provided within the current proposal for the site drainage as there is heavy reliance on single end point treatment features.

Standard 4: Amenity

The LLFA does not have sufficient information to comment on this standard.

Standard 5: Biodiversity

The LLFA does not have sufficient information to comment on this standard.

Standard 6: Construction, Operation and Maintenance

The LLFA has no comments to offer on the maintenance plan for the SuDS assets on site.

Outstanding Issues on Site

The LLFA notes that the following information would be required before our objection can be removed:

1. It is noted that the FCA goes into great details about proposed culverts to be installed onsite and the culvert under the A525 Ruthin Road. However, very little information has been provided on the other assets which influence the site. The LLFA believe that the developer should submit a full drainage assessment of the upstream ordinary watercourse system to determine the potential connectivity of drainage from the trunk road into the development site. A downstream assessment of all of the assets should also be made. This should include a CCTV survey of existing culverts along the ordinary watercourses to determine the condition and capacity of these assets. **Reason:** to determine if any existing infrastructure would be affected by the proposed plans.

Proposed Conditions

Given the issues that the LLFA has presented above, we would ask that the Local Planning Authority considers implementing the following conditions on the development:

1. A scheme for the upgrade of the culvert under Berse Lane and Bersham Road to ensure sufficient capacity should be submitted to the LPA for approval before the construction of drainage can commence. **Reason:** To reduce the likelihood of flooding to existing properties whilst allowing capacity to discharge surface water from the development site.
2. A plan showing the exceedance routes for any flood flows above that which the drainage is designed must be submitted for review by the LPA before development can commence.
Reason: To ensure that properties remain free from flooding and that emergency access to the development can be maintained in times of flood.

Conclusion

Overall, the LLFA continues to object to the proposals outlined as a part of this planning application. It is noted that the site already has existing issues with watercourse related infrastructure that does lead to the flooding of existing residential properties. The LLFA considers that the proposals outlined have the potential to exacerbate these issues. The LLFA is also concerned by the proposals to culvert an ordinary watercourse between its channel and flood plain area to accommodate a highways access. The LLFA does not consider this an acceptable method of flood risk management as blockages in this system will increase both on and off site flood risk.

If you have any questions regarding the above, please do not hesitate to contact the team via flooding@wrexham.gov.uk.

Yours sincerely,
Cathryn Hughes
Technical Flood Risk Officer
Lead Local Flood Authority Team

On Behalf of:
Darren Williams, Chief Officer
Environment and Technical Department
Wrexham County Borough Council