

**SITE:** Land West of Eaton Hill, Leominster, Herefordshire  
**TYPE:** Planning Permission  
**DESCRIPTION:** Erection of two poultry units, feed bins, widening of existing access, new access track and associated development  
**APPLICATION NO:** 162556  
**GRID REFERENCE:** OS 350488, 259234  
**APPLICANT:** Mr R Corbett  
**AGENT:** Mr Graham Clark  
**DATE OF THIS RESPONSE:** 28/06/2017

### **Introduction**

This response is in regard to flood risk and land drainage aspects. This is our second formal response in relation to this application. Our knowledge of the latest development proposals have been obtained from the following sources:

- Amended Location Plan drawing (Ref: HA18424/01 Rev C)
- Amended Flood Risk Assessment, dated May 2017

In addition to this we have previously reviewed the following information, which we understand to still be relevant:

- Application for planning permission;
- Design Access (Ref: HA18424/01);

### **Flood Risk**

Our previous response highlighted a discrepancy between the Environment Agency's (EA) detailed mapped outputs and modelled flood levels for the EA's River Lugg hydraulic model. The mapping provided indicates that the site will not be at risk at fluvial flooding up to the present day 1 in 100 annual probability event, but that the site will be at significant risk when the potential effects of climate change are taken into consideration. However, the modelled water levels to the south of the site indicate a 1 in 20 annual probability event water level of 68.92m AOD which is higher than the stated topography of the site.

The Amended FRA confirms that an indicative review of 2m resolution LiDAR data of the River Lugg to the south of the site shows the height of the northern river bank to be approximately 69.2m AOD. As a result, the 1 in 20 annual probability event modelled water level will be retained within the river channel. Therefore, the site is confirmed to be situated in Flood Zone 3a and not Flood Zone 3b Functional Floodplain and the type of development is deemed to be appropriate.

#### *Resilience and resistance measures*

Our previous response highlighted the need for the Applicant to provide clarification and demonstration of safe access and egress. The Applicant has provided a map showing the proposed route to be taken in the event of a 1 in 100 flood to the north towards Comfort House. Facilities such as the community centre and shops may be used in the event of a flood. It is recommended that a flood plan is prepared to set out what will happen in the event of a flood. The FRA does not consider access for the emergency services to the site in the event of a flood. It is recommended that the Applicant confirms what the flood levels would be along the road to the north of the site and if this is acceptable for emergency service vehicles.

### **Surface Water Drainage**

The Applicant previously proposed to locate the attenuation pond to the west of the proposed building. However, it was believed that this would have been located within the extent of the 1 in 100 + 35% CC annual probability flood extents. The amended FRA states that the attenuation pond will now be located to the south of the proposed buildings. A review of the detailed mapped outputs for the EA's River Lugg hydraulic model suggest that this area is located within the 1 in 200 annual probability flood extent.

Drawing 5 in the FRA indicates that the proposed attenuation pond will be located within the 1 in 100 + 35% CC annual probability flood extent. As per our previous response, locating the attenuation pond within this flood extent will not provide attenuation of runoff up to the 1 in 100 + CC event. The FRA provides evidence demonstrating why it is not feasible to locate the attenuation pond outside of the 1 in 100 + 35% CC annual probability flood extent. Our previous responses stated that if the attenuation pond was located within the flood extent then appropriate mitigation would be required. A suitable bund will need to be provided to protect the pond against flooding up to the 1 in 100 + CC event. Additionally, The Applicant would therefore need to provide flood compensation for this pond at a location outside of the 1 in 100 + 35% CC allowance annual probability flood extents on a level-for-level basis. The Applicant must demonstrate how the pond will remain outside of the predicted flood extents whilst not increasing flood risk elsewhere. It is recommended that the FRA is updated to include these measures.

The Applicant also previously proposed to discharge surface water from the site to an existing highways drain to the west of the site located adjacent to the A49. The local highways authority has since confirmed that this approach is not feasible. The Applicant now proposes to discharge surface water from the site to an existing unnamed watercourse located to the south of the site which discharges to the River Lugg. Our previous response indicated that a minimum rate of 2.4 l/s is considered achievable subject to appropriate upstream treatment within the pond. On page 30 of the FRA the applicant states that the sustainable drainage strategy is designed to attenuate surface water runoff to 5l/s, in contrast to the previous section on page 28 stating 2.4l/s. It is recommended that the FRA is updated to the agreed discharge rate of 2.4l/s.

The Applicant proposes to use a non-return valve in order to prevent water backing up into the attenuation basin. The Applicant should also consider the risk of water not being able to discharge into the adjacent watercourse during periods of high river levels in the receiving watercourse.

### **Foul Water Drainage**

The Applicant previously proposed to treat foul water in a septic tank located below ground level on site. The FRA states that it is now proposed to treat foul water via an above ground solution. Incoming foul water will be pumped to a sewage treatment plant.

Evidence of a sequential approach to the location of the pumping station and sewage treatment plant should be provided. It is recommended that the equipment is located above the 1 in 100 + 35% CC annual probability event flood level as far as practicable. However the FRA states that the sewage treatment plant and pumping station will be located in the 1 in 100 + 35% CC annual probability event in order to allow the site to drain by gravity.

The foul drain will not have any manholes and any required vents will be located above the 1 in 100 + 35% CC annual probability event flood level. Access to the pumping station will have a watertight cover to limit water ingress and the FRA advises that it is extended above ground level. This approach is considered to be acceptable.

The Applicant is required to demonstrate that there is sufficient capacity within the pumping station in the event of a 24 hour pump failure to reduce the impacts to the quality of surface water and groundwater features on site.

The Applicant has confirmed that washdown water from the poultry houses will be discharged to an underground storage tank and will not be managed on site.

We recommend that the Applicant discusses the location of the pumping station and sewage treatment plant with the EA, most notably to discuss potential impacts to the quality of surface water and groundwater features.

### **Overall Comment**

Our review of the Applicant's proposals has raised a number of concerns that we recommend are addressed prior to the Council granting planning permission. This includes:

- Demonstration that appropriate mitigation will be put in place as the location of the proposed surface water attenuation pond is within the 1 in 100 plus climate change flood extent to allow it to operate effectively and not increase flood risk elsewhere.

The site may also be located within an area at present-day flood risk and, therefore, the Council should satisfy themselves that the development passes the Sequential Test in accordance with NPPF.

Should the Council be minded to grant planning permission, we recommend that the Applicant submits the information requested above along with the following information within any suitably worded planning conditions:

- Detailed drawings of the proposed attenuation pond to demonstrate that it will remain operational during the 1 in 100 year plus climate change event, will provide an appropriate freeboard of 300mm, and will provide an appropriate high level overflow.
- Confirmation of the proposed authority responsible for the adoption and maintenance of the proposed drainage systems.
- Detailed drawings of proposed outfall structures.
- Demonstration that there is sufficient capacity within the pumping station in the event of a 24 hour pump failure.
- Evidence that the Applicant has sought and agreed permissions to discharge foul water from the site with the EA.

Any discharge of surface water or foul water to an ordinary watercourse will require Ordinary Watercourse Consent from Herefordshire Council prior to construction.