SITE: TYPE: DESCRIPTION:	Land North of Maes Y Felin, Dinedor, Hereford, Herefordshire HR2 6PE Planning Permission (retrospective) Reformation of land to provide swale and installation of drainage pipes (Retrospective)
APPLICATION NO:	170527
GRID REFERENCE:	SO 52511, 35984
APPLICANT:	Mr R Richards
AGENT:	Mr Bernard Eacock
DATE OF THIS	
RESPONSE:	27 th April 2017

Introduction

This response is in regard to flood risk and land drainage aspects, with information obtained from the following sources:

- Environment Agency (EA) indicative flood maps available through the EA website.
- EA groundwater maps available through the EA website.
- Ordnance Survey mapping.
- Cranfield University Soilscapes mapping available online.
- Strategic Flood Risk Assessment for Herefordshire.
- Core Strategy 2011 2031.

Our knowledge of the development proposals has been obtained from the following sources:

- Application for Planning Permission;
- Location Plan (Ref: 15-040-01);
- Flood Risk Assessment;
- Planning Statement (Bernard Eacock Ltd.);
- Site Plan Sections (Ref: 15-040-0001);

Site Location

Figure 1: Environment Agency Flood Map for Planning (Rivers and Sea), March 2017



Overview of the Proposal

The Applicant has stated that this is a retrospective application for the installation of swales and drainage pipes. The site covers an area of approx. 7.5ha. The Tar's Brook is located along the southern boundary of the proposed development site. The topography of the site slopes down from approx. 125m AOD in the north of the proposed site to approx. 85m AOD in the south.

Fluvial Flood Risk

Review of the Environment Agency's Flood Map for Planning (Figure 1) indicates that the site is located within the low risk Flood Zone 1: Flood Zone 1 comprises land assessed as having less than a 1 in 1,000 annual probability of river flooding.

As the proposed development is more than 1ha, in accordance with Environment Agency standing advice, the planning application has been supported by a Flood Risk Assessment (FRA). This is summarised in Table 1. It has assessed the adequacy of the pipes to transmit flood flows across the field.

Other Considerations and Sources of Flood Risk

Review of the EA's Groundwater map indicates that the site is not located within a designated Source Protection Zone or Principal Aquifer.

The site has a history of surface water flooding following extreme rainfall events which fills the ditch at the bottom of the hill and has been known to cause flooding on the adjacent lane. Flooding has occurred at the downstream farm building. Swales and drainage pipes were installed to try and alleviate the problem.

Surface Water Drainage

This retrospective application is for the retention of the installation of swales and drainage pipes. A hydrology report has been presented calculating the pre-development Greenfield runoff.

There are 3 150mm diameter pipes in the embankment. Each of these is installed to allow rainwater to be stored upstream of them. The 3 pipes are laid at differing gradients so that they overflow at different times in a rainstorm.

The Applicant has provided calculations to prove that the lowest pipe which has a capacity of 20.8l/s. At the start of the rainstorm, the runoff rate has been calculated at 36.5l/s, consequently, storage will be mobilised at a rate of 15.7l/s.

Although the attenuation volume has not been modelled, it is evident that the land drainage feature allows storage of rainwater in storms, thus reducing the runoff rate.

Foul Water Drainage

Disposal of Foul Water is not required.

Overall Comment

We do not object to the retrospective planning application.