SITE:	Aldersend Farm, Alders End Road, Tarrington, Hereford, Herefordshire HR1 4ET
TYPE:	Planning Permission
DESCRIPTION:	Conversion of farm buildings to 3 no. holiday houses. (Amendment to existing planning approval).
APPLICATION NO:	231549
GRID REFERENCE:	OS 362190 - 239976
APPLICANT:	Karen & Mark Buist
AGENT:	Adele Mills

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

- Application for Planning Permission;
- Location Plan (Ref: PP-12165051v1);
- Alders End Site Plan (Ref: PL01 Rev D);
- Existing & Proposed Site Plan (Ref: PL2e);
- Design, Access and Heritage Introductory Statement;
- Alders End Existing Site Photos;
- REVISED Surface and Foul Water Drainage Strategy 8.11.23 (Ref: Rev C);
- REVISED Foul & Surface Water Drainage Layout 27.11.2023 (Ref: Rev A);
- Answers to BBLP Drainage Queries 4.9.23;
- Comments on 'in-combination' HRA effects 10.9.23;
- Email Correspondence with Agent and Drainage Consultant 8.11.23 28.11.23.

## Site Location

Figure 1: Environment Agency Flood Map for Planning (Rivers and Sea), June 2023.



## **Overview of the Proposal**

The Applicant proposes the coversion of agricultural buildings to  $3 \times 3$  bed holiday houses. The site covers an area of approx. 0.39ha. A small pond is located to the south of the site and a larger pond is located to the north of the site. An ordinary watercourse/drainage ditch flows along the eastern boundary of the site from the south to north. Four more ponds are found approx. 31m to the northeast of the site

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which feed into another watercourse. The topography of the site slopes down from southwest to northeast by approx. 4m.

#### Flood Risk

## 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. As the proposed development is less than 1ha and is located within Flood Zone 1, in accordance with Environment Agency standing advice, the planning application does not need to be supported by a Flood Risk Assessment (FRA). This is summarised in Table 1:

Table 1: 3	Scenarios i	reauirina	a FRA
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	Within Flood Zone 3	Within Flood Zone 2	Within Flood Zone 1
Site area less than 1ha	FRA required	FRA required	FRA not required*
Site area greater than 1ha	FRA required	FRA required	FRA required

\*except for changes of use to a more vulnerable class, or where they could be affected by other sources of flooding

#### Surface Water Flood Risk

Review of the EA's Risk of Flooding from Surface Water map indicates that the majority of the site is not located within an area at risk of surface water flooding however there is a small area of high-risk surface water ponding around the existing buildings. This risk should be considered in the design and build of the barn conversions, with thresholds raised where required.

## Figure 2: EA Surface Water Flood Risk Mapping, June 2023



## **Other Considerations**

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





# Surface Water Drainage

Infiltration testing was undertaken at the site with three trial holes excavated to 1.5mBGL. Infiltration rates of 3.33x10<sup>-7</sup>m/s, 1.26x10<sup>-6</sup>m/s and 6.28x10<sup>-8</sup>m/s were recorded, which confirms that a discharge of surface water runoff to ground, for a development of this size is not feasible.

Two ground water level assessments were conducted at 2.5mBGL, with groundwater and free running water observed at depths of 2.3mBGL and 2.4mBGL respectively.

We understand that total impermeable area of the site will be reduced by 1,754m<sup>2</sup>; this includes the removal of 676m<sup>2</sup> of roofs. This is due to the proposed building demolition and conversion of impermeable areas back to greenfield. The permeable landscape onsite will increase by 1,078m<sup>2</sup> and the finished roof area of the proposed development will be 1,916m<sup>2</sup>.

We now note proposals for a new attenuation basin with a restricted offsite discharge (2 l/s) to a local permanent watercourse located to the northeast of the site. The required storage volume is  $118.47m^3$  in order to accommodate a 1 in 100yr + 40% CC event. The proposed attenuation basin has been designed with an adequate volume of  $172.8m^3$  ( $12m \times 12m \times 1.2m$ ). The attenuation basin is proposed to be sited within shared land, as required. We understand that the attenuation basin will not be lined to allow infiltration where possible. The discharge will be limited via a 75mm diameter orifice control chamber.

The proposed attenuation basin location is outside the red line site boundary but remains within the land ownership boundary.

We understand that the 'REVISED Foul & Surface Water Drainage Layout 27.11.2023' (Ref: Rev A) now shows the receiving watercourse of both the surface and foul water flows from the proposed development to be located within the land ownership boundary. The Agent/Drainage Consultant has stated in email correspondence that there is no third-party land to cross to construct the associated headwalls and the plan has been amended to reflect this.

All surface water drainage infrastructure will be installed downgradient of the proposed development to accommodate a gravity fed discharge.

Although the overall impermeable area of hardstanding will be reduced, new areas of hardstanding will be constructed of permeable materials. This is appropriate given the good shallow soakage proven onsite. We understand that the permeable areas will also drain to the proposed attenuation basin via underdrains in periods of heavy rainfall.

## Foul Water Drainage

Percolation testing has been undertaken at the site in June 2021. Five trial pits were excavated to depths ranging between 100mm and 1000mm. Four of the five trial pits were abandoned during testing. The 100mm deep pit was tested twice and although a Vp rate of 38.5s/mm and 94.2s/mm were recorded, the rates were achieved at an extremely shallow depth, making discharge of treated foul water effluent to ground unviable.

We note proposals for a shared package treatment plant sized for a minimum potential population of 14 persons, as required. The treated foul flows are proposed to discharge to a local permanent watercourse via a 10m partial drainage field; this is located downgradient of the proposed development. Evidence has been provided to confirm that the receiving watercourse has a non-seasonal, constant





base flow. The proposed foul discharge point is 50m away from the existing discharge point for The Farmhouse; these arrangements are to be retained as part of the development.

As the site is within the River Lugg Catchment, phosphate credits will be required to facilitate this arrangement.

We must be clear that we are only accepting the proposals involving a shared foul water drainage system due to the proposed use of the development as holiday houses. The development will remain under the same ownership due to this, hence why we are able to accept these arrangements, in principle.

#### **Overall Comment**

In principle we do not object to the proposals, however we recommend that the following information is provided within suitably worded planning conditions:

• Submission of detailed drainage design drawings/construction plans for both the surface and foul water drainage systems.



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**Balfour Beatty**