

**SITE:** Land North of Byways Cottage, Dilwyn, Herefordshire HR4 8JS  
**TYPE:** Planning Permission  
**DESCRIPTION:** Proposed erection of one dwelling and associated works including access, landscaping and drainage.  
**APPLICATION NO:** 233493  
**GRID REFERENCE:** OS 342364 - 255143  
**APPLICANT:** Mr James Verdin  
**AGENT:** Matt Tompkins

Our knowledge of the development proposals has been obtained from the additional sources provided since our previous consultation response in February 2024:

- Drainage Strategy 17.10.24 (Ref: CWC268/1b-RP-01-Rev 3).

### **Site Location**

Figure 1: Environment Agency Flood Map for Planning (Rivers and Sea), February 2024.



### **Overview of the Proposal**

The Applicant proposes the construction of a new dwelling (3-bed). The site covers an area of approx. 0.1ha and is currently greenfield land. An ordinary watercourse flows along the southern site boundary. There is another ordinary watercourse which flows approx. 200m to the south of the site. We understand that both watercourses are tributaries of the Stretford Brook. The topography of the site gently slopes down away from the road from northwest to southeast by approx. 2m.

### **Flood Risk**

Review of the Environment Agency's Flood Map for Planning (Figure 1) indicates that the site is located within the low probability Flood Zone 1.

Although the proposed development is located within Flood Zone 1, the EA Flood Map for Planning does not consider watercourses with small catchments and therefore it may happen that the site is identified as located in Flood Zone 1 on the EA map but there may be a risk of fluvial flooding from the watercourse located along the southern site boundary.

Table 1: Scenarios requiring a FRA

	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

The EA Flood Map for Planning does not consider watercourses with small catchments; therefore, the site is identified as located in Flood Zone 1 meaning there may be a risk of fluvial flooding from the watercourse. A topographic survey of the site has been undertaken; part of the mapped ditch/watercourse along the south-eastern site boundary could not be measured due to overgrown. The water level in the watercourse is stated to be 74.53mAOD and the base of the watercourse is shown to be 74.16mAOD. The topographic survey also demonstrates that there is an existing ditch along the western site boundary. There is an existing field access over the ditch/watercourse to access the field to the south-east with associated existing culvert.

It has now been confirmed that the proposed finished floor level of the dwelling will be raised 300mm above local ground levels. As part of the proposed development, we understand that modest earthworks are to be completed to provide a level parking and turning area plus rear adjacent patio area surrounding the proposed dwelling. It is stated that the finished top paved surface will be set at 75.60mAOD. Thus, it has been specified that the proposed FFL is 75.90mAOD. The rear garden levels are to remain unchanged at approx. 75.50mAOD.

We are aware of other planning applications in Dilwyn (221854 and 233773); for these applications, local residents have highlighted evidence that the highway floods from the Puddle Brook. The EA Surface Water Flood Risk Mapping also demonstrated this flood risk. Despite this, we are clear that this mechanism is fluvial flooding; the catchment size is too small for the fluvial flood risk to be appropriately demonstrated on the Flood Map for Planning. We must be clear that the watercourse which flows along the south-eastern site boundary of this site (233493) is not the Puddle Brook.

As the adjacent highway to the north of this site (233493) is not mapped at being at risk of surface water or fluvial flooding, and no concerns have been raised by local residents regarding this for the proposed development, the proposed permeable driveway and parking area will be sufficient to accommodate any marginal run-off from the highway onto the site should any occur.

### Surface Water Flood Risk

Review of the EA's Risk of Flooding from Surface Water map indicates that the site is not located within an area at risk of surface water flooding. The watercourse which flows along the southern site boundaries is shown to be a low to medium-risk surface water flow route.

Figure 2: EA Surface Water Flood Risk Mapping.



### ***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 has been undertaken at the site whereby one trial hole was excavated to 2mBGL. The location of the trial hole has now been confirmed. Three tests were conducted in the hole and all established acceptable infiltration rates. The slowest infiltration rate obtained was  $1.25 \times 10^{-5}$  m/s which proves that a surface water discharge to ground at depth is viable. No groundwater was encountered in the 2m deep trial hole.

We note proposals for the surface water run-off to discharge to ground via permeable paving whereby the driveway and patio areas are proposed to receive all the roof water run-off from the proposed dwelling and garage. As above, in order to facilitate these proposals, we understand that modest earthworks are proposed to create a level space around the dwelling; the finished top paved surface level will be set at 75.60m AOD. The proposed dwelling FFL will be set 300mm above this (75.90m AOD) and the garden area to the rear is to remain unchanged (approx. 75.50m AOD).

Given that the surface water drainage proposals comprise the use of permeable paving (shallow infiltration feature), and infiltration testing has only been conducted at depth (2mBGL), **we recommend that the Applicant conducts a shallow infiltration test during construction to confirm that soakage remains viable as suggested.** Should the test fail or obtain a poor infiltration rate, the Applicant should reconsider the surface water drainage strategy to use conventional soakaways as the supporting test results demonstrate that this would be a viable option.

Should any surface water runoff from the proposed permeable paving area occur, it appears that only the proposed dwelling would be at risk due to the topography of the site. As such, the above advice is in the Applicant's/future homeowner's best interests. The runoff would likely continue downgradient before reaching the existing ditch to the southeast of the site.

The total impermeable roof area of the site (dwelling and garage combined) is 100m<sup>2</sup>. Supporting sizing calculations for the proposed permeable paving area have been provided demonstrating it has been designed appropriately to accommodate a 1 in 100yr + 45% CC event, as required. Should conventional soakaways be reverted to, these must also be sized to accommodate a 1 in 100yr + 45% CC event.

It should be noted that soakaways should be located a minimum of 5m from building foundations and that the base of soakaways should be a minimum of 1m above groundwater levels.

It is stated that the homeowner will be responsible for the management and maintenance of the surface water drainage infrastructure.

### **Foul Water Drainage**

Welsh Water have confirmed that capacity exists within the public foul sewerage system to accommodate the additional foul flows associated with the proposed development.

**Overall Comment**

**NO OBJECTION**

Based on the reviewed documents stated above, provided there are no changes made to the proposed flood risk mitigation measures, and surface water and foul water drainage arrangements at any other planning stages and will be constructed in line with the design and plans under this application, in principle, we hold no objections to the proposed development.

**We recommend that a shallow infiltration test is conducted during construction to confirm that the above surface water drainage proposals are the most appropriate option for the proposed development.**