

SITE: Land at Hopleys, Nr Hoarwithy, Herefordshire HR2 6QD
TYPE: Waste
DESCRIPTION: Grass covered Round Barrow for the placement of urns containing human cremation ashes.
APPLICATION NO: 161406
GRID REFERENCE: OS 354361, 230461
APPLICANT: Mr Andrew Bower
DATE OF THIS RESPONSE: 21/06/2016

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 Soilsclapes 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 drawing (undated);
- Proposed Site Plan (dated 26 April 2016);
- Proposed Barrow Plan (Ref: 295/50).

Site Location

Figure 1: Environment Agency Flood Map for Planning (Rivers and Sea), January 2016



Overview of the Proposal

The Applicant proposes the construction of a round barrow for urns containing human cremation ashes, along with an associated footpath linking the barrow to a parking area.

The Application form states that the site is 387m² and that it is currently used for arable farming. Though this does not appear to include the path and car park, it is assumed that the overall site area will be less than 1ha.

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.

The site is less than 1 ha and located in flood zone 1. Therefore, 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: 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

The Planning Practice Guidance to NPPF identifies five classifications of flood risk vulnerability and provides recommendations on the compatibility of each vulnerability classification within each of the Flood Zones. The NPPF considers all development to be acceptable (from a flooding point of view) if located in Flood Zone 1.

This guidance is in accordance with requirements of the NPPF and Policy SD3 of the Core Strategy. Guidance on the required scope of the FRA is available on the GOV-UK website at <https://www.gov.uk/planning-applications-assessing-flood-risk>.

Other Considerations and Sources of 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 significant risk of surface water flooding.

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

It is noted that the Applicant has included a bund and pond in their proposed site layout. However, they have not submitted a drawing or explanation showing how the proposed hardstanding (car park and access) are drained. Given the illustrated size of the pond and the low-density rural nature of this development, it is considered likely that an appropriate drainage system can be implemented.

Prior to construction, the Applicant should provide a surface water drainage strategy showing how surface water from the proposed development will be managed. The strategy must demonstrate that there is no increased risk of flooding to the site or downstream of the site as a result of development between the 1 in 1 year event and up to the 1 in 100 year event and allowing for the potential effects of climate change.

In accordance with the NPPF, Non-Statutory Technical Standards for Sustainable Drainage Systems and Policy SD3 of the Core Strategy, the drainage strategy should incorporate the use of Sustainable Drainage (SUDS) where possible. The approach promotes the use of infiltration features in the first instance. If drainage cannot be achieved solely through infiltration due to site conditions or contamination risks, the preferred options are (in order of preference): (i) a controlled discharge to a local watercourse, or (ii) a controlled discharge into the public sewer network (depending on availability and capacity). The rate and volume of discharge should be restricted to the pre-development Greenfield values as far as practicable.

The Cranfield University Soils Mapping characterises the local soil as freely draining which suggests that infiltration measures may be feasible for the management of surface water runoff. However, on-site testing should be undertaken, in accordance with BRE365, prior to construction to confirm that the proposed drainage system is viable. If infiltration rates are considered to be too low, an alternative drainage strategy should be submitted to the Council for review and approval prior to construction. Where site conditions and groundwater levels permit, the use of combined attenuation and infiltration features are promoted to provide treatment and reduce runoff during smaller rainfall events.

The drainage system should be designed to ensure no flooding from the drainage system (which can include on-the-ground conveyance features) in all events up to the 1 in 30 year event.

The proposed barrow appears to contain an entrance that could allow storm water to enter the structure. The Applicant should consider how surface water will be prevented from entering the barrow, and/or how it will be drained, once it is inside.

Consideration should also be given to the control of potential pollution of ground or surface waters from vehicles. Evidence of adequate separation and/or treatment of polluted water should be provided to ensure no risk of pollution is introduced to groundwater or watercourses both locally and downstream of the site from proposed parking and vehicular areas. SUDS treatment of surface water is considered preferential.

The Applicant should address any contamination risks to controlled waters (namely surface water features and/or groundwater resources) associated with the proposed development, particularly associated with any leachate if applicable, and clarify the measures that will be put in place to manage pollution risks.

The Applicant must confirm the proposed adoption and maintenance arrangements for the surface water drainage system.

Overall Comment

We have no objections in principal to this proposed development. Our review has highlighted a number aspects regarding the management of surface water runoff and potential leachate that must be considered during the detailed design of the development, but given the low-density rural nature of this development we do not foresee any issues with achieving a suitable strategy as part of the planning condition process.

Should the Council be minded to grant planning permission, we recommend that the submission and approval of detailed proposals for the management of surface water runoff from the development is included within suitably worded planning conditions. The detailed drainage proposals should include:

- Demonstration that opportunities for the use of SUDS features have been maximised, where possible, including use of infiltration techniques and on-ground conveyance and storage features;
- A detailed surface water drainage strategy with supporting calculations that demonstrates there will be no surface water flooding up to the 1 in 30 year event;

- Evidence that the Applicant is providing sufficient on-site attenuation storage to ensure that site-generated surface water runoff is controlled and limited to agreed discharge rates for all storm events up to and including the 1 in 100 year rainfall event, with a 30% increase in rainfall intensity to allow for the effects of future climate change;
- Results of infiltration testing undertaken in accordance with BRE365;
- Confirmation of groundwater levels to demonstrate that the invert level of any soakaways or unlined attenuation features can be located a minimum of 1m above groundwater levels;
- Evidence that the Applicant has sought and agreed permissions to discharge surface water runoff (and allowable discharge rates) from the site with the relevant authorities;
- Demonstration that appropriate pollution control measures are in place prior to discharge;
- Confirmation of the proposed authority responsible for the adoption and maintenance of the proposed drainage systems.

If the results of infiltration testing indicate that infiltration will not provide a feasible means of managing surface water runoff, an alternative drainage strategy must be submitted to the Council for review and approval. Best practice SUDS techniques should be considered and we promote the use of combined attenuation and infiltration features that maximise infiltration during smaller rainfall events.