

**FLOOD RISK ASSESSMENT FOR MINOR  
DEVELOPMENT**

**WATERFORD HOUSE VICARAGE LANE HERTFORD  
SG14 2PZ**

**Dated : 28 September 2023**



**SITE PLAN**



**PROPOSED LAYOUT**

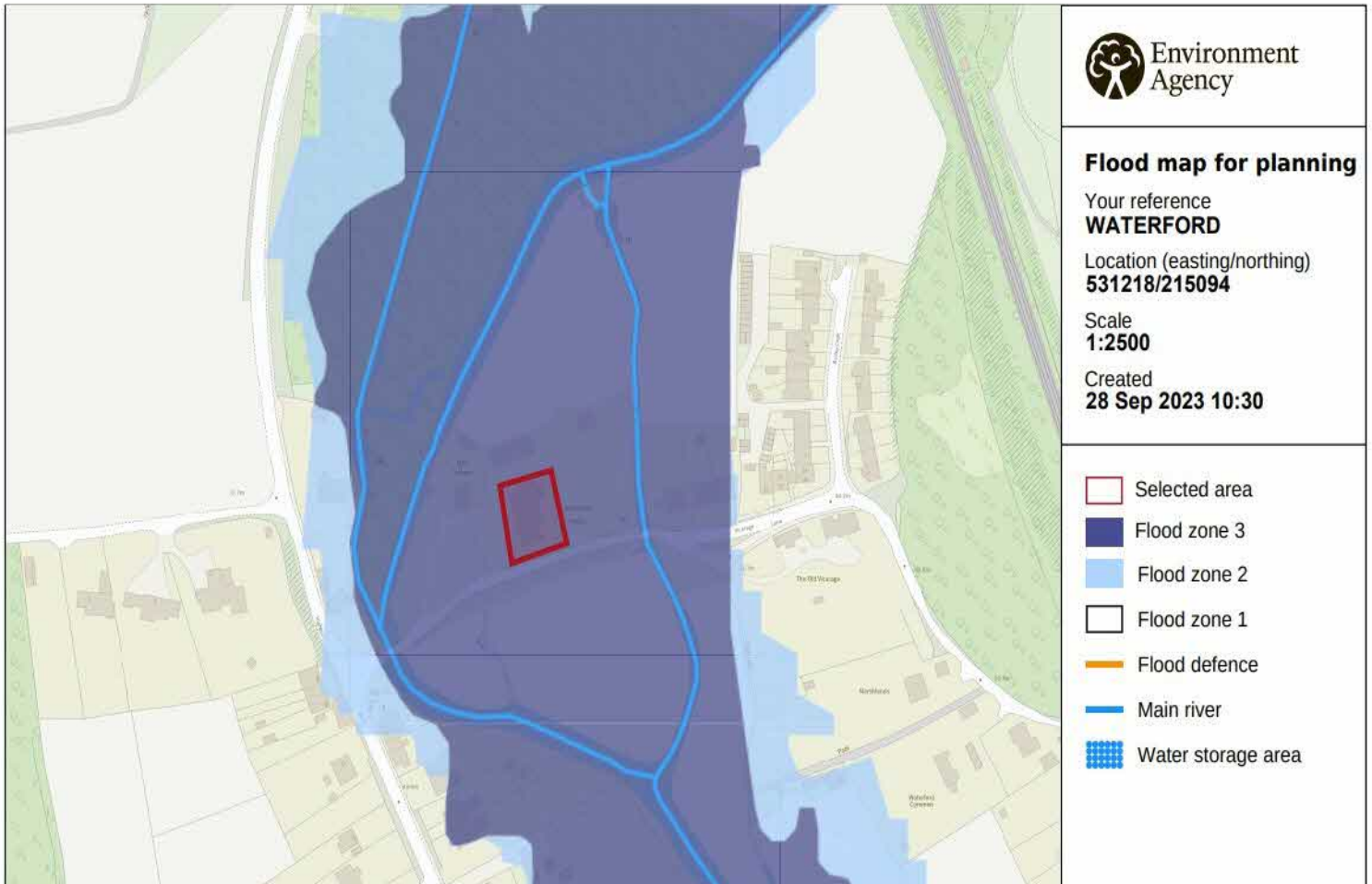
# Flood map for planning

Your reference  
**WATERFORD**

Location (easting/northing)  
**531218/215094**

Created  
**28 Sep 2023 10:30**

**Your selected location is in flood zone 3, an area with a high probability of flooding.**



# ENVIRONMENT AGENCY FLOOD MAPPING FOR SURFACEWATER

Flood risk

Extent of flooding ▼



Extent of flooding from surface water

-  [High](#)
-  [Medium](#)
-  [Low](#)
-  [Very low](#)
-  Location you selected

**PROPOSED MINOR DEVELOPMENT AT WATERFORD HOUSE  
VICARAGE LANE HERTFORD SG14 2PZ CNSTRUCTION OF A  
MENAGE AND A STABLE WITH TACK ROOMS.**

**FLOOD RISK ASSESSMENT / DESK TOP STUDY.**

This report is compiled to accompany a planning application. Detailed plans are provided to the planning department by the applicant.

It adheres to the criteria within the National Planning Policy Framework (NPPF) and its guidance notes as well as the Environment Agency (EA) Advisory Notes to local authorities.

EA mapping for planning shows the site in Flood Zone 3 but in its legend with its mapping it states that the threat is medium.

The proposals are for the formation of a menage within the curtilage of the site together with a stable with tack rooms.

The flooding threat is from the River Beane which passes close to the site .

The surface of the menege is permeable .

The stable is not flood proof . Because of this no compensation is required for it taking space in a flood plain.

It is NPPF guidance that all sources of flooding must be considered in a flood risk assessment and these are laid out below as being in the maps and the associated legend .

- ◆ The EA states under rivers and the sea that there is a medium risk of flooding on the site.
- ◆ Surface water mapping shows the threat of flooding is low to very low.
- ◆ Groundwater flooding is unlikely to happen. The threat is low
- ◆ There is a threat from of the site being affected by reservoir flooding but the EA is on record as saying that this is hardly likely to occur due to the

history of inspection , maintenance and general husbandry of reservoirs throughout the country. Therefore the threat is low

- ◆ There are no private artificial sources of flooding in the area to threaten the site

### **Flood Resilience measures**

- ◆ The electrical wiring in the stable should drop from the ceiling to sockets 400mm above ground floor level. The sockets should be waterproofed units
- ◆ All drainage and waste pipes should be fitted with ‘non-return valves’ to prevent the ingress of contaminated water back into the building.
- ◆ No metal piping should be used under the extensions to abort future corrosion.
- ◆ The mortar mix should include flood protective material including the foundations.
- ◆ The ground floor should be of concrete rather than wood.
- ◆ The mains electricity box should occupy a space just below the roof.
- ◆ Any new walkways on site and also any new material on the access should be of permeable material.

### **Sustainable drainage**

This should be handled by water harvesting. Over capacity water butts should be for rainwater off the roof of the stable. The water collected could then be used for keeping the stables clean and tidy and if necessary to keep water troughs replenished for the horses.

In the event of exceptional conditions the butts could overtop so a French Draine should be installed to take the overtopping water to a garden boarder for attenuation to take place.

### **Offsite Implications**

There would be none with the recommendations as made.

## **Evacuation procedure**

It is recommended the proposed development should be a subscriber to the EA Floodline initiative which gives a three phase warning system. 1. Be aware of a possible flood threat. 2. Prepare to evacuate. 3. Get out.

However in the FRAs we compile all over the country we make it clear that there is only one method of safe evacuation. That is to get out when the escape route is still dry .

The Floodline initiative may give occupants of the site a misconception as to how long they should stay on site before going. We consider that the sight of advancing floodwater can create panic particularly to the old ,infirm and the disabled and children as well.

Better to go at the first warning when everything can be done in a controlled and orderly manner and in the dry. If the flood waters do not actually reach the site then nothing is lost .

But there is a big gain in terms of safety. It will also show the evacuation plan works and will give everybody concerned the confidence of knowing the site owners value their safety

We have used this methodology on many occasions for FRAs throughout the country . We have had no objections from the local authorities involved in all the FRAs recommending this form of early evacuation.

It is better to be “safe not sorry” especially when lives are at stake.

## **Residual Risk/ Pluvial**

This deals with incidents occurring that are outside the normal capacity of a flood risk assessment, basically, freak occurrences.

The only source of this could be flooding from pluvial affects. Such as the “great storm” of 2007.

This was when two anti-cyclones swept over the country creating the “great storm of 2007” remembered by people all over the country.

Hundreds if not thousands of homes which had no history of flooding were invaded by surface water. The EA described the devastation as of “biblical”



proportions. It was recorded that the equivalent of three months rain fell in 14 hours.

However, it is also very important to remember that the Met. Office provides specialist forecasts to the emergency services and other, government departments, as well as to the international community and has continuous operational capability.

This enables the Met Office to provide an immediate response to customers requiring meteorological information to deal with a variety of environmental incidents.

The National Severe Weather Warning Service provides severe weather alerts and warnings to the general public and emergency responders, giving up to four days advance notice of disruptive weather conditions. These are updated daily in the run up to the weather event and include maps showing the risk of disruption across the UK.

The Extended Warning Direct (EWD) service also takes advantage of more recent developments in technology and allows contact to be made through mobile phones and PC's. Information concerning the category of flood warning is also sent to the emergency services and local authorities who may need to mobilise and implement evacuation procedures.

A new Flood Forecasting Centre (FFC) has also been set up between, the Agency and Met Office and is intended to improve the lead time and accuracy of flood warnings issued to emergency services and other important services to assist them with emergency planning decisions.

In such a case storm water and groundwater could be affected.

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But 4 days' notice of extreme conditions would be more than adequate for the site owner to prepare for pluvial events and to carry out the evacuation plan.

Should an event occur such as in 2007 it is recommended that those still in the property should wait out the storm and not evacuate the property.

It would be too dangerous to do so

Having said that, the 2007 storm affected such a large area of the country that it would not be particularly relevant to a single site alone and it would be anomalous within the remit of a standard flood risk assessment to include such detail as a definitive source of flooding.

## **CONCLUSION**

Although the flood mapping shows the site in flood zone 3 the EA does acquiesce to the possible flooding being in the "medium" category rather than any major threat.

The meteorological office in liaison with the EA Floodline initiative gives up to four days warning of possible flooding taking place anywhere in the country. This would give ample time for evacuation in the dry.

Should the site be threatened the site should be closed and signs put up outside the site to explain why it is closed and why entry is not allowed.

Signed

A solid black rectangular box redacting the signature of David Eggleton.

David Eggleton  
Managing Director