

Proportionate Flood Risk Assessment

For the proposed surface works at
The Burrows, Wargrave Road,
Remenham, RG9 2LT

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1 Introduction

1.1 Site location

The project is at “The Burrows”, Wargrave Road, Remenham, RG9 2LT (see Figure 1).



Figure 1: Site location plan, with North topmost.

1.2 Development description

The site is an existing developed site and the proposed work is classed as minor development. This report covers two proposals:

1. An area of external ground strengthening.
2. A storage area.

All plans to be submitted under separate cover.

1.3 Scope of FRA

The scope of this FRA is such that it has “regard, in particular, to the nature and scale of the proposed development” (Ref 62(4A) T&CP Act.) as described above.

2 Flood risk analysis

2.1 Sources of potential flooding

Flood risk from various sources at the site is analysed in this section.

2.1.1 Flood risk from sea and rivers

Flooding can occur from the sea due to a particularly high tide or surge, or combination of both.

The site is not at risk from tidal flooding.

Flooding can also take place from flows that are not contained within the channel due to high levels of rainfall in the catchment.

With reference to the Environment Agency flood mapping, as at Figure 2 it can be seen that the location of the storage area is predominantly within Flood Zone 2.

The area of local reinforcement is wholly within Flood Zone 3.



Figure 2: Extents of Flood Zones 2 and 3 relative to the gravelled storage area

2.1.2 Flood risk from groundwater

Groundwater flooding occurs when water levels in the ground rise above surface levels. It is most common in low-lying areas underlain by permeable rock (aquifers), usually

due to extended periods of wet weather. The site's geology is classified as having low susceptibility to groundwater flooding, <25%.

Hence, the risk of groundwater flooding on the proposed site can be considered to be Low.

2.1.3 Flood risk from sewer and highway drains

Flooding occurs when combined, foul or surface water sewers and highway drains are temporarily over-loaded due to excessive rainfall or due to blockage.

There are no indicators to Sewer flooding at the site.

Hence, the risk of sewer and highway flooding to the proposed site can be considered to be Low.

2.1.4 Flooding risk from surface water

Flooding occurs when rainfall fall on a surface (on or off the site) which acts as run-off which has not infiltrated into the ground or entered into a drainage system.

With reference to the E.A's RoFSW data, Figure 3, both locations are in an area with a very Low risk of flooding from surface water and hence not at risk.

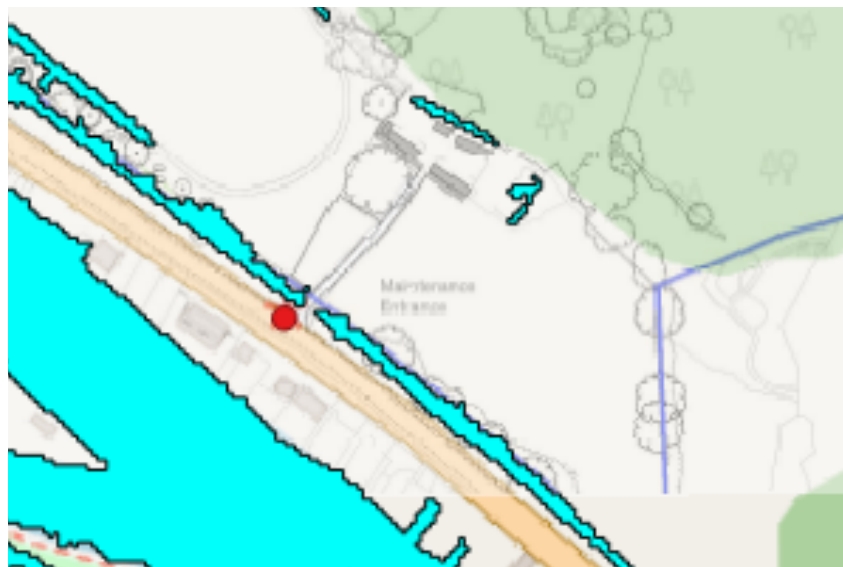


Figure 3: SW Flood risk 1 (1 in 1000yr) relative to the site. Data from RoSWF data set overlain on a Google map image. The area of both elements of the works is not shown to be at risk from surface water flooding

2.1.5 Flood risk from infrastructure failure

Flooding occurs because of canals, reservoirs, industrial processes, burst water mains or failed pumping stations.

The site is not shown to be at a Low flood risk from reservoir failure.

3 Levels

3.1 External ground levels

3.1.1 Area of ground strengthening

It is understood that the ground level is not being raised, only strengthened by the use of a reinforcement grid material (Bodpave).

3.1.2 Storage Area

This area is not being raised only surfaced by the use of a free draining material (understood to be gravel).

4 Summary

- The Storage area is predominantly in Flood Zone 2;
- The Storage area formed using a pervious freely draining material (understood to be loose gravel);
- Given the use of a pervious surface the use of this area for storage will not increase flood risk elsewhere;
- The area of “Bodpave” reinforcement is wholly in Flood Zone 3;
- The ground levels are not being raised hence there will be no loss in flood plain capacity;
- The “Bodpave” system does not affect the natural drainage of the area hence there will be no additional run-off from this area;

In conclusion, neither the gravelled storage area nor area of local surface reinforcement will increase flood risk elsewhere and hence from a flood risk perspective both schemes are considered to be acceptable.

Signed:



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