

# Flood Risk Assessment (FRA):

November 2020

## The Diary, Catherington Lane, Catherington



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**NOTE:**

The following documents may be of use when completing a Flood Risk Assessment:

- Flood Risk Assessment guidance
- Site Flood Plan guidance  
    Havant Borough Local Plan 2036(HBLP2036)
  
- More guidance can be found at  
[https://maps.hants.gov.uk/push/Reports/PUSH\\_SFRA\\_PCC\\_Guidance\\_for\\_Upload.pdf](https://maps.hants.gov.uk/push/Reports/PUSH_SFRA_PCC_Guidance_for_Upload.pdf)

## 2. Flood Risk Assessment

### Introduction



### Development site

The proposed development site has an area of 0.5 Hectares and is located on the corner of Catherington Road and Roads Hill, just outside the Catherington Conservation Area (as designated 11th. February 2003). On the Site's eastern boundary, facing Catherington Lane, the site is well screened by a line of mature, mixed species trees with a single ash in the top north east corner.

The northern boundary to Roads Hill, again well screened, has in the western corner, a group of mature mixed species trees including a Field Maple. In addition there are two groups of Leyland Cypresses and one hawthorn specimen. Ground vegetation to the north and east can be described as ruderal scrub. To the south and east perimeter the boundary is delineated by fencing beyond which are horse paddocks.

## **The site location is in flood zone 1, an area with a low probability of flooding.**

This means:

- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

The Open Government Licence sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

**This report demonstrates that any future proposal will be safe, in terms of flood risk, for its design life and will not increase the flood risk elsewhere.**

### **Development proposals**

The site falls under the UK definition of a brownfield site in that it is 'previously developed land' that has the potential for being redeveloped.

Only small part of the Site can be described as having some regular use. There are two poor quality, run-down workshop buildings that are used as garages to repair and store vehicles. The first shed consists of single leaf, brick walls with chrysotile roof and the second has concrete block lower walls with metal upper walls and roof on a metal frame.

In addition the site houses a number of shipping containers, a mobile horse stable and an area of hard standing.

According to the Environment Agency Website (Flood Map for Planning (Rivers and Sea)), this site is within Flood Zone 1 and is therefore outside predicted flooding area. Also, as the site is smaller than the 1ha. threshold, a specific Flood Risk Assessment is not required.

### **Background**

This FRA has been carried out in accordance with the requirements of the Revised National Planning Policy Framework (NPPF) published on 24 July 2018 and the Environment Agency's Flood Risk Assessment (FRA) Guidance Notes and the best practices in flood risk management.

The National Planning Policy Framework sets out planning policy in order to avoid inappropriate

development in areas at risk of flooding by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.

## **FRA Requirements and Objectives**

The site-specific FRA should address the following:

- how flood risk affects the proposed development,
- whether the development type is appropriate for the proposed location,
- whether the site's flood risk is too great for the development,
- whether the proposed development will increase flood risk elsewhere,
- carry out the Sequential Test and the Exception Test where necessary,
  
- meet the additional flood resistance and resilience requirements where necessary.

The objectives of this site-specific flood risk assessment are to establish:

- whether the proposed development is likely to be affected by current or future flooding from any source,
- whether it will increase flood risk elsewhere,
- whether the measures proposed to deal with these effects and risks are appropriate,

## **Sequential Test**

***PLEASE NOTE: Applications for minor development or changes of use will not be subject to the sequential or exception tests, but should still meet the requirements for site-specific flood risk assessments.***

***The proposed development for the provision of 9 no. dwellings, whilst outside any area of flood risk, has been acknowledged to if required by the LPA to apply upon approval to adhere to the requirements from the NPPF Flood Zone requirements as stated in the table on the following page.***

Table 1 - NPPF Flood Zones and Requirements (NPPF Technical Guidance Table 1)

<b>Zone 1: Low Probability Flood Zone</b>	<b>This is defined as the land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (&lt;0.1%).</b>
<b>Appropriate uses</b>	All uses of land are appropriate in this zone.
<b>FRA requirements</b>	For development proposals on sites comprising 1 ha or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off, should be incorporated in a FRA.
<b>Policy aims</b>	Developers and local authorities should seek opportunities to reduce the overall level of flood risk through the layout and form of the development, and the appropriate application of sustainable drainage techniques.

### **Site specific flood hazards**

The proposed development site lies outside any area perceived to be at risk from flooding with the main risk of flooding coming from a tidal (sea) source which may affect the remainder of site over time. The site may be at potential risk from surface water flooding. The image on page 2 shows the site in context of the perceived flood risk.

#### **Tidal flooding**

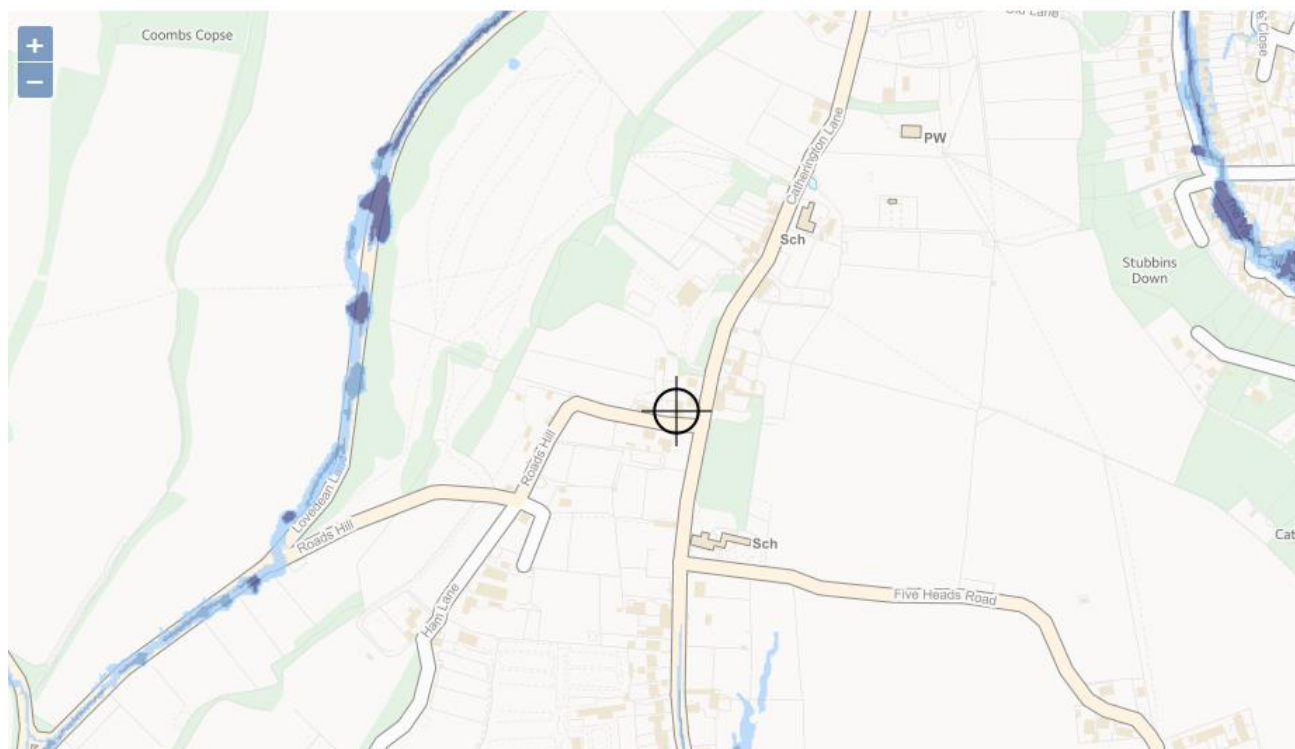
Flood model data for the site suggests that over the lifetime of the development can be expected and will be of low velocity. Flooding of this nature is likely to cause danger for some according to table 13.1 of FD2320\*.

#### **Surface water flooding**

The surface water flooding arises when the infiltration capacity of land or the drainage capacity of a local sewer network is exceeded, and the excess rainwater flows overland. The severity of surface water flooding depends on several factors such as the degree of saturation of the soil before the event, the permeability of soils and geology, hill slope steepness and the intensity of land use.

Information on the risk of surface water flooding is held by the Environment Agency.

The Environment Agency's Surface Water Flood Risk Maps is shown below which indicate that the risk of surface water flooding to the site varies from 'low' to 'none'. The flood depth is likely to be less than 300mm.



## **Flood risk from sewers**

Sewer flooding is often caused by excess surface water entering the drainage network causing sewers to surcharge. The SFRA has provided very limited information on sewer flooding within the area, however, there were no records of sewer flooding incidents at the site. It is important to note that previous sewer flood incidents or the lack thereof do not indicate the current or future risk to the site as upgrade work could have been carried out to alleviate any issues or conversely in areas that have not experienced sewer flooding incidents the local drainage infrastructure could deteriorate leading to future flooding.

According to the information obtained from the landowner, there were no records of sewer flooding incidents at the site in the past.

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## **Flood Risk Management**

In order to afford a level of protection against flooding it is normally recommended that finished floor levels are set a nominal 300mm above the 1 in 100-year annual probability fluvial flood (1% AEP) including an allowance for climate change.

These measures will be implemented within any development and if required by the LPA, the finished floor level of any proposed building will be set at the current level and the residual flood risk will be mitigated (if any required) by implementing flood resilient measures and utilising the Environment Agency's Flood Alert

services.

## **Flood Resilient Measures which may be implemented on any future development**

The following flood resilient measures will be adopted, where practicable, to minimise the damage and to enable quick recovery and clean up after the flooding event:

- Water, electricity and gas meters will be located above predicted flood level.
- Non-return valves will be used in the drainage system to prevent back-flow of diluted sewage in situations where there is an identified risk of the foul sewer surcharging.
- All service entries will be sealed (e.g. with expanding foam or similar closed cell material).
- Closed cell insulation will be used for pipes which are below the predicted flood level.
- Boiler units and ancillary devices will be installed above predicted flood level and preferably on the first floor of two-storey properties.
- Wiring for telephone and other services will be protected by suitable insulation to minimise damage.

**Note: Whilst the above will be taken into account upon construction of the proposal, these measures may be subject to change as for a storage unit as proposed it may not be required within the final building and subsequently not implemented.**

## **Sustainable Urban Drainage Systems (SuDS)**

Due to the nature of the hard landscaping, whilst not within an area of high risk of flooding, its recommended that any future development proposal will include the access road to be a surface of high permeability to ensure there will not be an increase in the surface run off of the site.

## **Conclusions**

The site at the corner of Roads Hill & Catherington Lane falls under the UK definition of a brownfield site in that it is 'previously developed land' that has the potential for being redeveloped.

Any proposed development will be categorised as 'low' throughout the whole site.

According to the information available from the SFRA and the Environment Agency, the site has no history of flooding.

The Environment Agency's flood risk map indicates that the risk of flooding to the site is 'low'.

The flood risk from other sources including underground water, sewer and reservoir is low.

In order to minimise the damage and to enable quick recovery and clean up after any flooding event, it is proposed that flood resilient measures could be implemented if required by the planning authority or a condition added to any permission if deemed necessary.

This report demonstrates that any development will be safe, in terms of flood risk, for its design life and will not increase the flood risk elsewhere.



# Useful contacts

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## East Hants District Council

01730 266551

Alternatively you can call us on **01730 266551**, 9am to 5pm, Monday to Friday. The main council offices are located at Penns Place, Petersfield, GU31 4EX.

## Environment Agency

**Telephone:** 01962 76 48 78 (Mon-Fri, 8am - 6pm)

**Telephone from outside the UK:** 00 44 1709 389 201 (Mon-Fri, 8am - 6pm)

**Minicom service:** For the hard of hearing a minicom service is also available by calling 03702 422 549\*

**Email:** [planningSSD@environment-agency.gov.uk](mailto:planningSSD@environment-agency.gov.uk)

**Postal address:**

Romsey Office  
Canal Walk  
Romsey  
Hampshire  
SO51 8DU

\*Calls to 03 numbers cost no more than a national rate. Calls to a 01 or 02 number and must count towards any inclusive minutes in the same way as 01 and 02 calls. These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone.

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