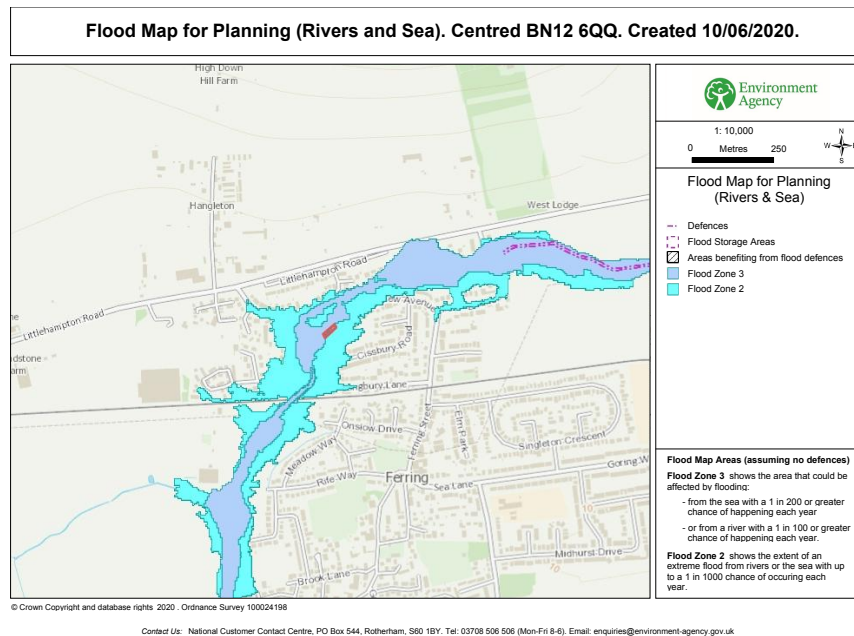


Flood Risk Assessment (FRA)

In support of planning application ref. FG/140/20/HH, for a domestic extension of less than 250 square metres.

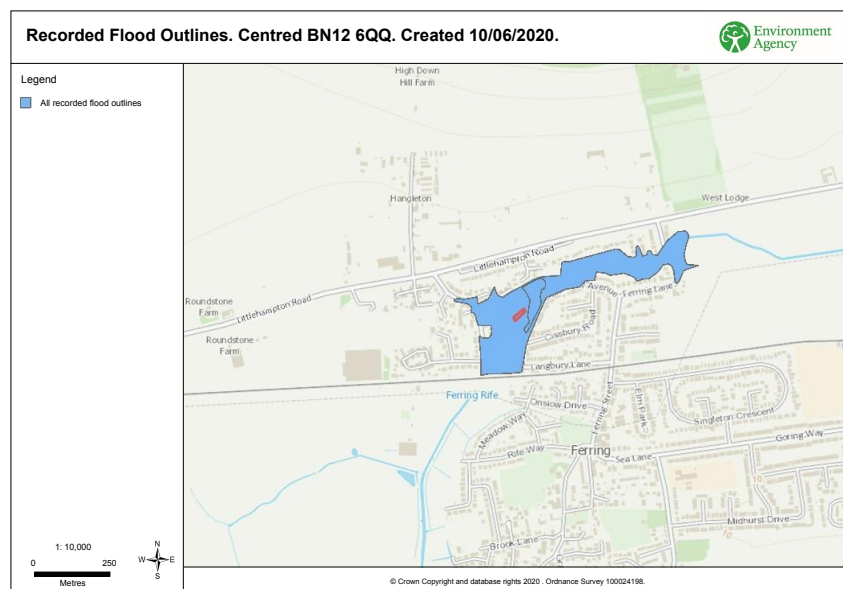
- 1) Flood Zone at 10 Highdown Way, BN12 6QQ
Location (easting/northing) 509224/103257



The site is in an area located on the boundary of Flood Zone 2 and 3 as shown on the above Flood Map for Planning (Rivers and Sea).

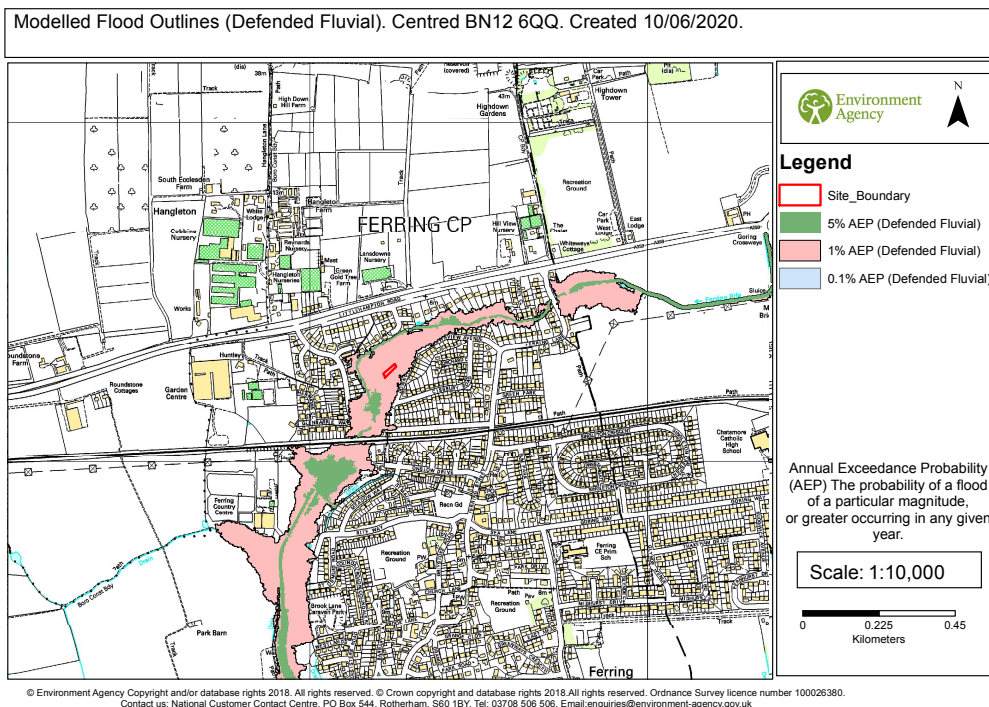
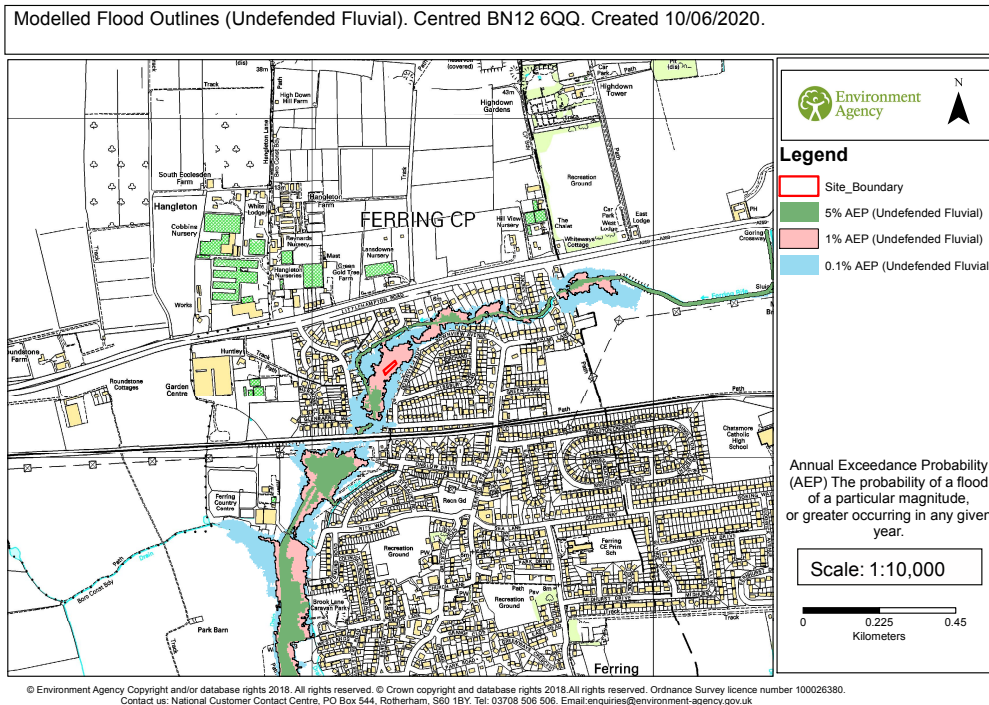
2) Flood History

The site, surrounding gardens, properties and roads were last flooded in 1980. The source of the flood was local drainage. The recorded flood outline is shown below.

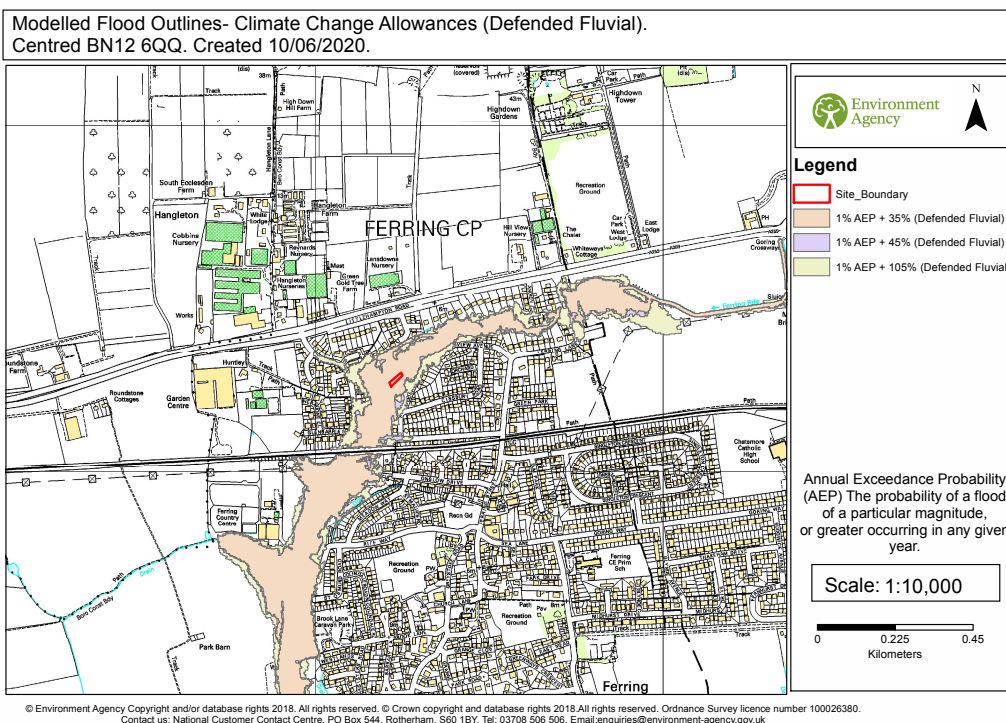
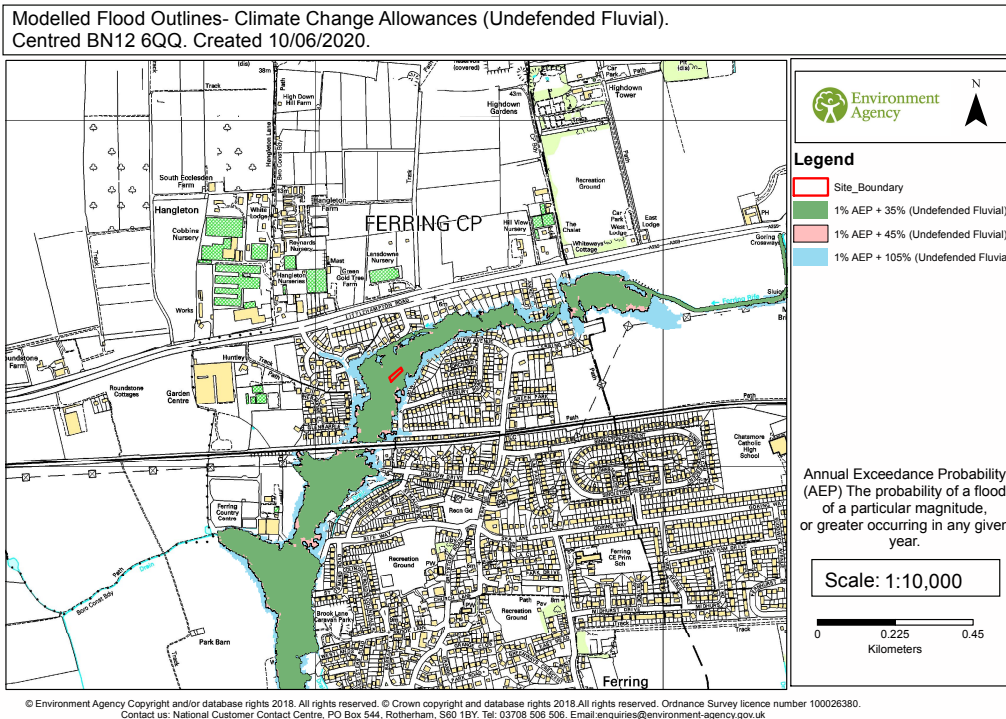


3) Flood Level Predictions (Fluvial Risk)

The undefended and defended fluvial flood outlines associated with the site are shown below. In both cases the site falls within the 1% Annual Exceedance Probability (AEP) region.



The associated undefended and defended fluvial (climate change allowance) flood outlines are also shown below. In both cases the site falls within the 1% + 35% Annual Exceedance Probability (AEP) region.



The following tables identify the flood levels and depths relating to two positional node points, depicted below. Node 1 is most relevant to the related planning application location.

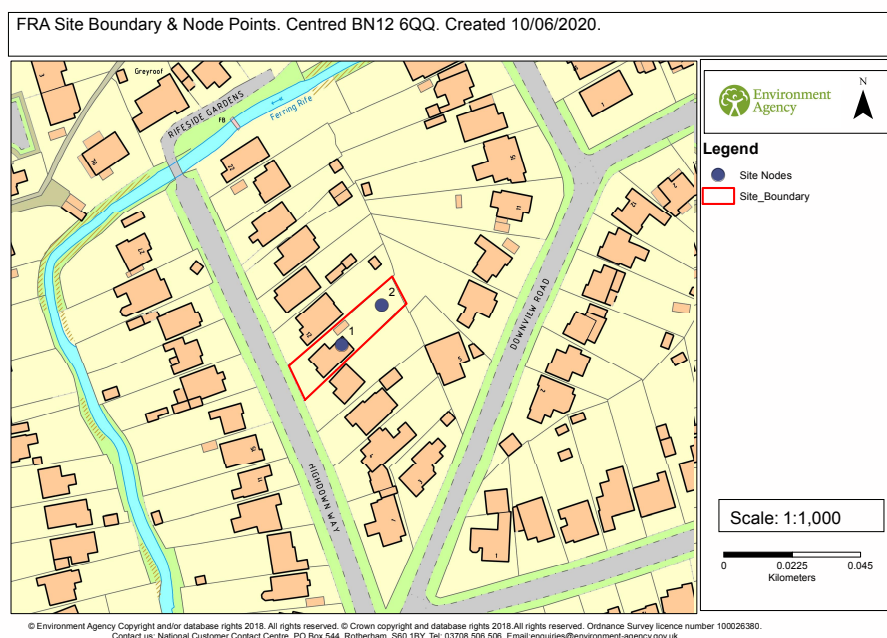


Table 1: Water Levels: Fluvial Undefended

Node Ref	NGR		Modelled Flood Levels in Metres AOD					
			Undefended Annual Exceedance Probability					
	Eastings	Northings	5%	1%	1% +CC (35%)	1% +CC (45%)	1% +CC (105%)	0.1%
1	509230	103264	-	4.56	4.79	4.85	5.11	4.91
2	509244	103277	-	4.57	4.80	4.86	5.12	4.92

Table 2: Water Levels: Fluvial Defended

Node Ref	NGR		Modelled Flood Levels in Metres AOD					
			Defended Annual Exceedance Probability					
	Eastings	Northings	5%	1%	1% +CC (35%)	1% +CC (45%)	1% +CC (105%)	0.1%
1	509230	103264	-	4.55	4.77	4.83	5.10	4.90
2	509244	103277	-	4.56	4.78	4.84	5.11	4.91

Table 3: Water Depths: Fluvial Undefended

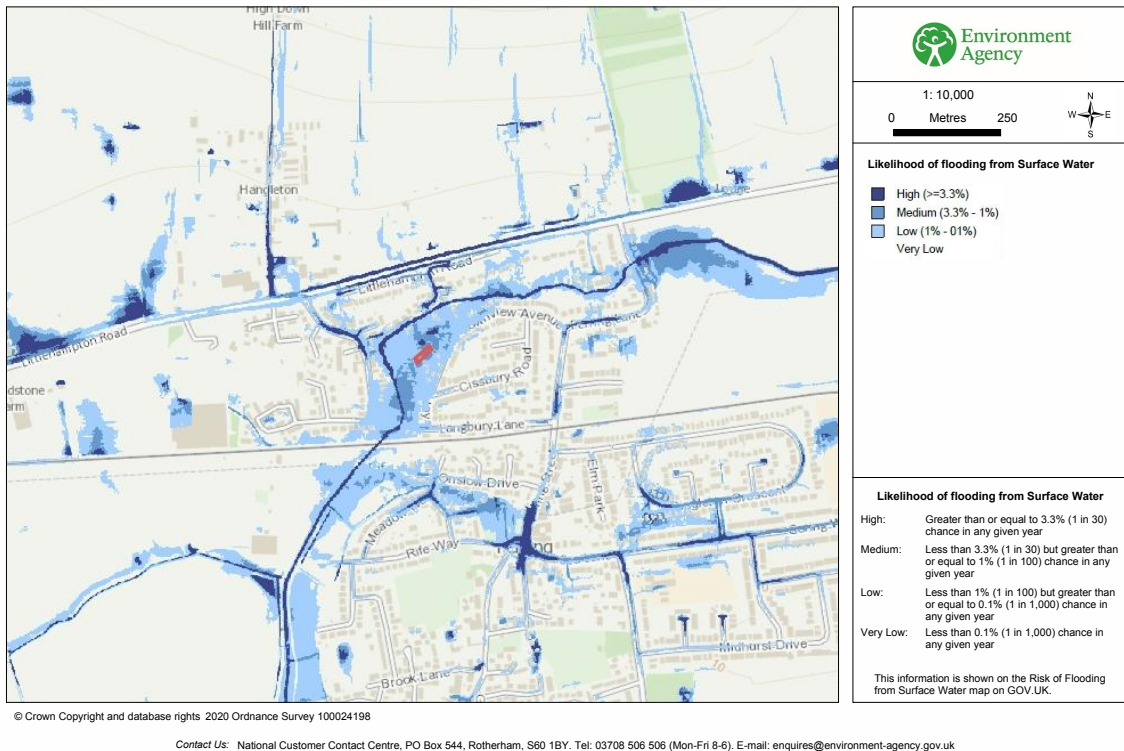
Node Ref	NGR		Modelled Flood Depths in Metres					
			Undefended Annual Exceedance Probability					
	Eastings	Northings	5%	1%	1% +CC (35%)	1% +CC (45%)	1% +CC (105%)	0.1%
1	509230	103264	-	0.18	0.40	0.45	0.72	0.52
2	509244	103277	-	0.15	0.38	0.43	0.69	0.50

Table 4: Water Depths: Fluvial Defended

Node Ref	NGR		Modelled Flood Depths in Metres					
			Defended Annual Exceedance Probability					
	Eastings	Northings	5%	1%	1% +CC (35%)	1% +CC (45%)	1% +CC (105%)	0.1%
1	509230	103264	-	0.18	0.41	0.47	0.73	0.53
2	509244	103277	-	0.16	0.39	0.44	0.70	0.51

4) Flood Level Predictions (Surface Water Risk)

The flood outline due to surface water flood risk, is shown below. The site falls within the 1% - 0.1% (low risk) region.



5) Flood Defences

There are no formal raised flood defences in the vicinity of the site.

6) FRA Summary and Impact on the Development

The worst case flood level (fluvial prediction) is 4.56m AOD, rising to 4.79m AOD when considering climate change allowances. This equates to a worst case flood depth (fluvial prediction) of 0.18m above site level, rising to 0.41m above site level when considering climate change allowances.

The site level at Node 1 (the location of the existing house) is 4.38m AOD and the existing house finished floor levels are 4.63m AOD, a delta of approximately 0.25m above site ground level.

The proposed ground floor extension areas will have finished floor levels set at the same level as for the existing house, at 4.61m AOD. To provide sufficient future flood protection, the construction of the extension areas will use flood resistant methods for the first metre above floor level.

Surface water will be discharged to the existing soak-away drainage arrangement as for the existing house.