FLOOD RISK ASSESSMENT

PROPOSED CHANGE OF USE FROM A2 TO A4

1 CAVENDISH CIRCUS, BUXTON, DERBYSHIRE, SK17 6AT

Existing Levels

The normal level of the River Wye at Buxton in average weather conditions is between 0.11m and 0.45m. It has been between these levels for at least 155 days in the past year. The usual range of the River Wye at Buxton in more extreme weather conditions is between 0.16m and 1.16m. It has been between these levels for 90% of the time since monitoring began. The most recent high is 1.28m, reached on Saturday 22nd November 2014 at 11:45pm. The highest level ever recorded at the River Wye at Buxton is 1.61m, recorded on Saturday 6th September 2008 at 2:45am.

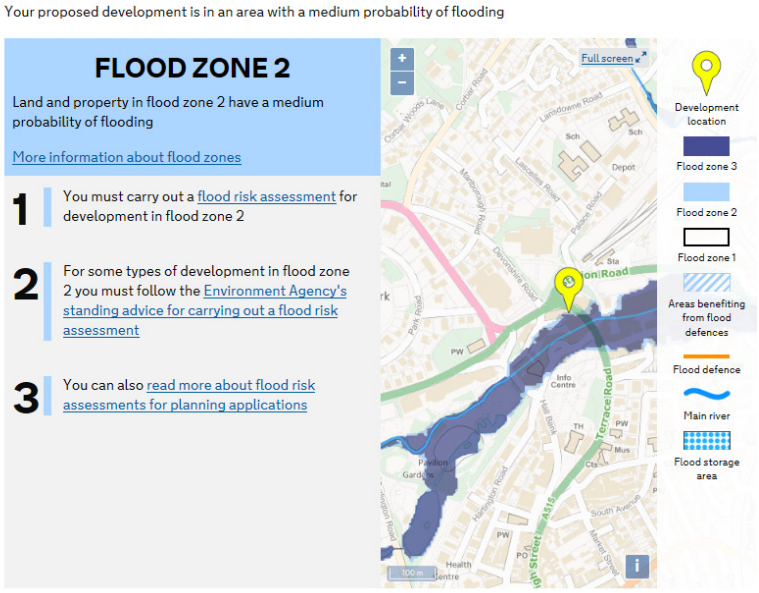
The Environment agency uses a network of monitoring stations across the country. Each one has its own datum - a height in metres fixed relative to mean sea level. This height is expressed as metres above ordnance datum (mAOD). The river levels we provide for each monitoring station are all relative to its site datum. The River Wye's ordnance datum is listed at 278.00mAOD, which is 23.00m below the approximate sea level of the site, which is listed at 301m.

Flood Level

The site is within Flood Zone 2 as indicated on the map below. Data was received from the Environment Agency's Flood Map below.

Flood Zone 2 – Medium Probability:

Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)



Proposal

It is proposed only to change the use of the building from a Bank (A2) to Drinking Establishment (A4). With a potential flood depth of 1.2m occurring in a 1 in 100 year plus cc event it would be impractical to raise the floor levels above projected flood level.

The Environment Agency suggest when developments can't be located in a lower flood risk area, you need to consider flood resistance and resilience measures if you can't raise your development's ground floor levels above the estimated flood level for the site.

Which flood resistance and resilience measures you need to take depends on the estimated depth in metres (m) that flood water will reach in your building.

When water depth is above 0.6m, it is required that you should design your building or development to allow water to pass through the property to avoid structural damage by:-

- using materials with low permeability to at least 0.3m
- making it easy for water to drain away after flooding
- making sure there's access to all spaces to enable drying and cleaning

Foul drainage will be no worse than the existing situation and the proposal will use the existing drainage system.

Conclusion

The proposed change of use will not will meet the necessary requirements of the Environment Agencies criteria and given the difference in height of the propos.