

The Hadley FloodSAFE House™



Flooding continues to devastate UK homes and livelihoods. Meanwhile, housing developers constantly battle the risk of building on land susceptible to varying degrees of flooding, resulting in a social and economic struggle.

The Hadley FloodSAFE House™ is designed to rise above this struggle, both literally and figuratively, helping protect housing and allowing the development of new properties to thrive.



The Social & Economic Impact of Flooding

Beyond structural damage, there are many risks, hazards and devastating after effects of flooding in the UK.

For residents and families, the social impact can often lead to long term effects on mental health, wellbeing and education.



Your home is more likely to be flooded than burgled



The average time for a family to return home after a flood is currently over 9 months

Financially, it means access to property and assets is often impossible, devastating the local economy including jobs and employment.



40% of businesses do not reopen after suffering a loss from flooding



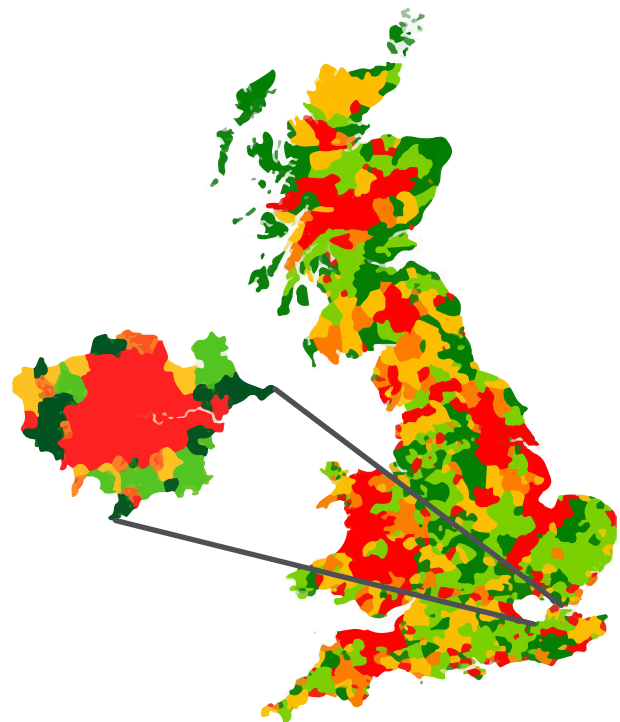
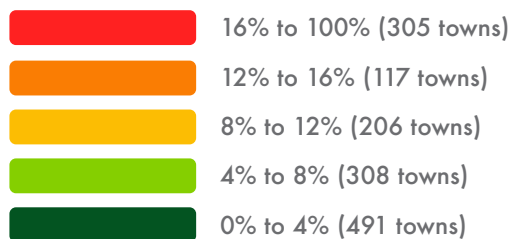
The flooding in 2015/16 was estimated to cost the economy £1.6 billion

As awareness of the effects of flooding become more widespread, particularly as the conversation around climate change builds momentum, there is still much to be done to protect our land and property assets to prevent further devastation.

Around 5 million people live in flood risk areas in England and Wales.

(source: Environment agency.)

Percentage of residential addresses at potential risk from flooding (by postal town)



The Impact of Flooding on Land and Property

In order to meet UK housing requirements, we must build more structures across more areas than ever before. However, the presence of housing in flood risk areas is already posing a threat to homes and livelihoods.



1 in 6 houses are in a flood risk area - that's 2.4 million homes in the UK



3 million further homes are at risk of surface water flooding



27% of all new homes (60,000 per annum) are built on a flood plain

Local Authority	Proportion of New Homes Built in Flood Zones 2018/2019	Proportion of LA Land in Flood Zones 2018/2019
Boston	97%	91%
Kingston upon Hull	92%	88%
South Holland	82%	84%
Southwark	80%	43%
East Lyndsey	76%	36%
Hammersmith and Fullham	68%	52%
Castle Point	53%	40%
Newham	53%	40%
Sedgemoor	50%	44%
North Somerset	48%	31%

Breakdown of new built houses in 2018/2019 (EA and Ministry of Housing & Local Gov Data)

Building on flood plains is inevitable. In response to the housing crisis, UK developers must look to flood zones to achieve the required provision of new houses.

The key to unlocking this land for safe and profitable home building is in the property itself. Unless we build differently, the economic burden of flood defences and repairs will continue.



The True Financial Cost of Flooding

In March 2020, the government announced a record **£5.2 billion investment** to build 2,000 new flood and coastal defence schemes.

A further **£120 million** was announced to repair assets damaged in the winter floods of 2019 to 2020.

Without having damage prevention measures in place at the outset, the above costs will only increase, along with the risk of flooding itself, as environmental evidence shows. In some situations, flood defences simply redirect flood waters, shifting the problem up or down stream.

The effectiveness of flood protection and flood defence options are not on a par with the solution the Hadley FloodSAFE House™ offers. FloodSAFE is flood avoidance.



The True Risk of Flooding

A Met Office study has shown that an extended period of extreme winter rainfall in the UK, similar to that seen in winter 2013/14, is now about **seven times more likely** due to human-induced climate change.

How The Hadley FloodSAFE House™ Works

The Hadley FloodSAFE House™ has been designed to allow properties and the possessions within them to avoid the damage caused by flooding, at precisely the moment it is needed, reducing risk and significantly reducing the time needed to prepare for a return home.

A series of EA approved water sensors detect a significant water-related event

1.



2.



Variable water sensors keep the home 150mm above the water level throughout

3.



4.



If required, the jack system raises the structure to 1.5 metres above water in 15 minutes

Structure then "follows" the water level until it is safe to return to ground level

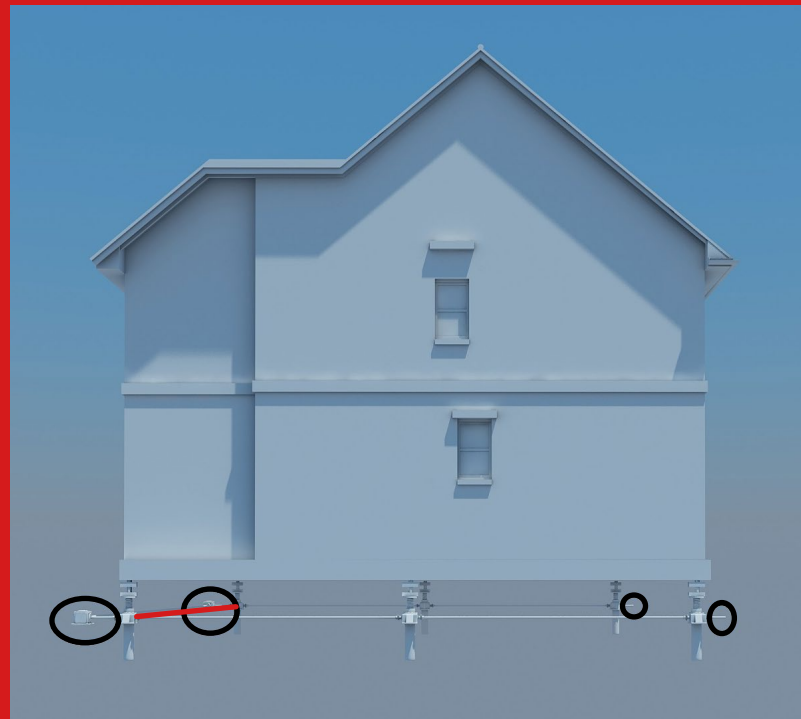


Scan the QR code to watch The Hadley FloodSAFE House™ jack system in action.

The average flood in the UK is less than 500mm; the Hadley FloodSAFE House™ has the capability of lifting the house safely in excess of 1.5 meters.

All Hadley FloodSAFE components in contact with the water are designed to be suitably rated.

The Hadley FloodSAFE House™ can be built without the need to raise the land; a FloodSAFE House development will never push flood water to areas that have never flooded before.



(Stats provided by UK market statistics, Environment Agency database, Gov.uk, Metoffice.gov.uk)