Flood Resilience - Well Worth It !

Twice Bitten

We live near Oxford and were flooded in 2000, 2003 and 2007.

We made insurance claims in tens of thousands of pounds in 2000 and 2003. In 2007 the damage was so little we did not claim. After the 2000 flood we put things back as before, thinking we would not flood again for 50 years. Three years and one flood later, we knew differently. When we flood, water comes up through the floor, so just blocking up outside doors would not solve the problem. So we decided to restore our house in a way that would minimise the damage caused by any future flood - so-called flood resilience.

Being flooded will never be fun, but being more or less flood resilient makes it less stressful and one's much more quickly back to normal.

Stone Floors

We are lucky that the water is pretty clean. We noticed that in our neighbours' farmhouse the stone-flagged floor only needed mopping to return to normal. While our insurers assessed our claim on the basis of replacing like with like, they did not mind how we spent the money. So we decided to have stone (travertine) floors, rather than replacing wooden floors. Fortunately we had a concrete slab already.

Sump and Pump

At the same time we had a sump (just a pit below floor level, in our case with a plastic drum lining it) dug in one corner of the kitchen, and in which sits a submersible electric pump. Water coming into the house runs across the floor and down through the grating (fig. 1) into the sump below. It's then pumped

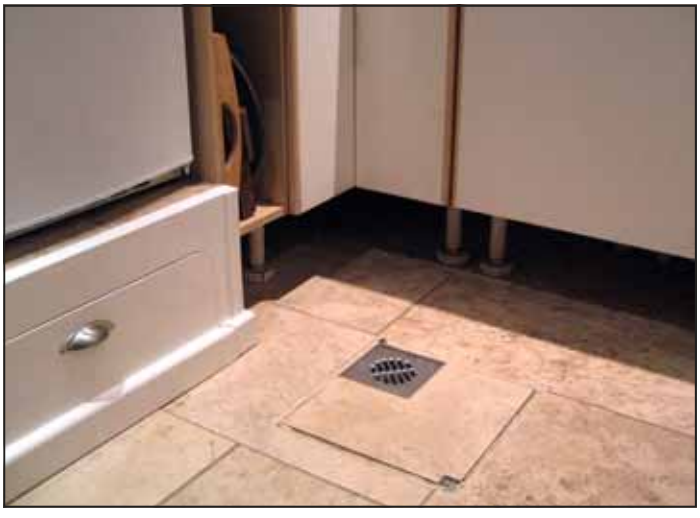

Figure 1

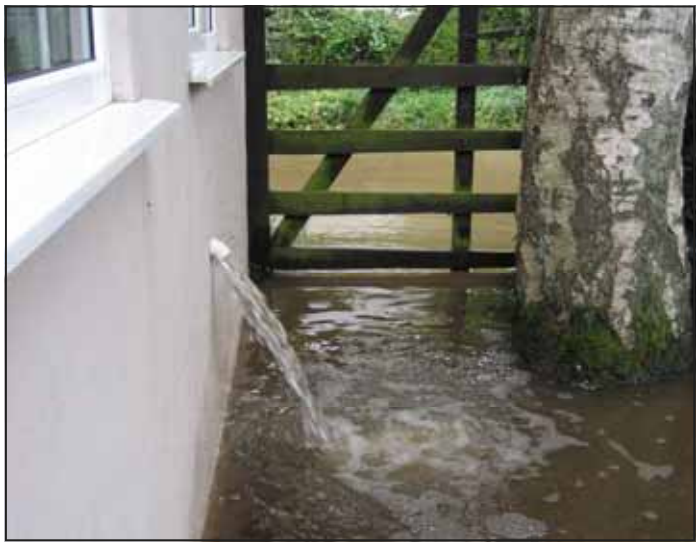

Figure 2

back out into the garden (fig. 2).

We are on the edge of the flood plain so we get plenty of warning and (so far!) the flooding outside has not been more than about 30 cm deep. If flood water gets about a metre or more deep outside you should not pump water out as the weight of water outside, not balanced by water inside, can cause a wall to collapse. Not a nice thought.

(I should just say that there are ways to try to proof houses against water coming in at all - such as tanking or cavity drainage systems. We did not go down this road, which tends to cost more, but may be worth investigating.)

Flood Boards

We could not get ready-made flood boards to fit our door frames so we had a carpenter fix grooved hardwood supports either side of the door and at flood time we slide in a marine ply board, with a rubber seal on the lower edge and two brass bolts into the supports to hold it in place - though mastic is still necessary. We had to use chewing gum at one stage but mastic is definitely better - be prepared with a fresh pack! Fig. 3 shows a board in place. A good DIYer (not me) could do all this.

Electrics Up

We have fridge (fig. 1), freezer and washing machine up on platforms with storage space below. They are actually easier to use at this height!

Electrical points are well up off the floor.

Kitchen units are anyway on plastic legs (quite common I think). The plinths unclip (again, common I think) and can be removed if a flood looks likely. Fig.

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2 shows the units with the plinths removed. There is no need for special waterproof units as the water never gets deep if the pump is doing its job.

We still put furniture up on wooden blocks or bricks or stand legs in plastic margarine containers or similar, but these should be sufficient because the water level should never rise far indoors.

When skirting boards were replaced we had them gloss painted on the back and underside edge before putting them in place. They survived the last flood undamaged.

Choice of plaster, and covering up air bricks during floods, are among other things to consider (see 'Finding out more' below). Another point to bear in mind is that in terraced or semi-detached houses water may get in through party walls, above or below floor level.

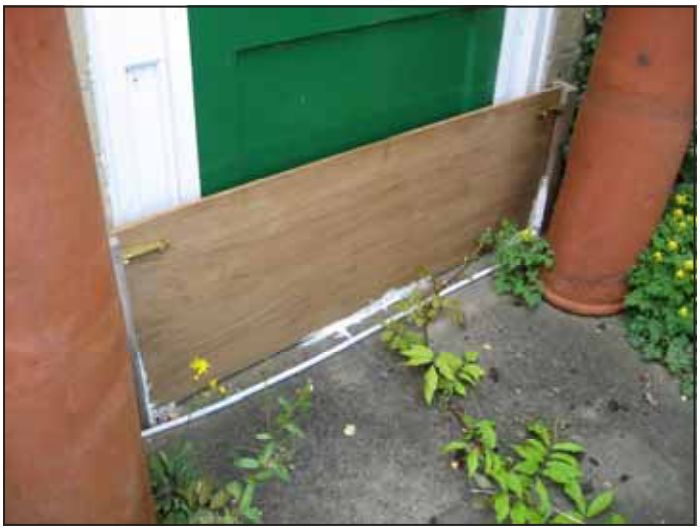

Figure 3

How Did it Work?

When the next flood duly came, in July 2007, the sump pump came into operation on cue. It coped well to start with, easily keeping pace with the water coming in; as time went by though it cut out at more and more frequent intervals. We now know that it was overheating and the thermal cut-out operating. The pump we had was not powerful enough for the job and we have had to get a bigger one. But even not working perfectly it did a pretty good job.

How Big a Pump?

I don't think you can calculate how big a pump you need because you can't readily work out how fast water comes in (at least I can't) - so as far as I can see all you can do is go for the biggest you can afford: talk to someone knowledgeable in your area. I'm not going into detail because circumstances differ so much. We know of people who have two pumps in a single sump and even two sumps in different parts of the house. Generator or battery back-up is something you might want to consider if power supply is at risk. There are firms who are able to advise about all this, an internet search or Yellow Pages will give some names.

If we were to start again we'd have a bigger sump too, which would take longer to fill so the pump would come on less often. I mean a bigger area, not deeper. Our present one is about 15 inches square - a better size might be say 24 inches square. But even with the overheating the pump did well enough to save the day.

Cost and Insurance

Cost is an issue for almost everybody. As far as I know insurance companies will not pay extra to help with these measures (though you could always ask!). However, many things don't cost much more (if at all) to do in a flood-resilient way. If they are done in the aftermath of a flood, insurance payments can be put towards them.

When dealing with insurers, think flood resilience and ASK. We were lucky with our insurers and loss adjuster, but not everyone is so lucky. But you need to ask too - if you don't ask you will probably end up with what the insurers decide, which may not be what's best for you.

Think twice when the insurer says they will "do everything and put it back just as it was"(!) You may be allowed to choose your own builder. Think flood resilience and keep asking for what you want.

Finding out More

This is just what we've done; these measures won't all be appropriate for everyone and of course, as always, you need to get proper advice for your own circumstances.

There are many other aspects to flood resilience not dealt with here. Ask the National Flood Forum for further advice. Stopping the water ever getting in is the best thing, but if that isn't possible, flood resilience measures are very well worthwhile.

Thanks

My thanks to two fellow conspirators in the Oxford Flood Alliance - Richard Thurston for reading the draft of this article and making several helpful comments; and Nick Hills for discussions on flood resilience.

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