we want to see resistance and resilience requirements included in Building Regulations. Over 5 million people, in over 2 million properties, already live in flood risk areas in England and Wales, yet most of these people have not taken any action to prepare for flooding.

We spend approximately £500m a year on flood risk management.

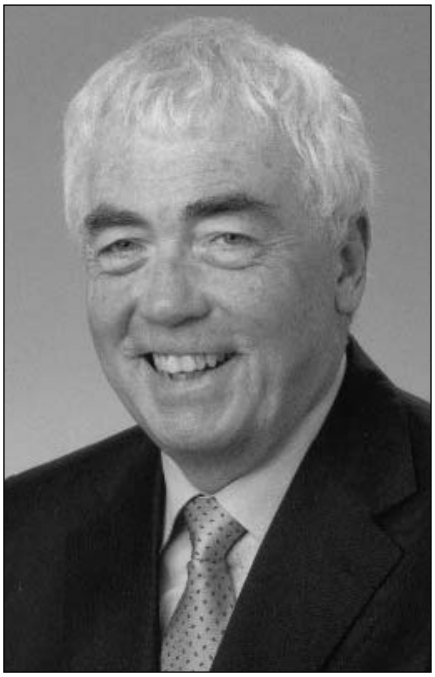
However, even with all the investment we put in, it is impossible to prevent flooding entirely. But by typing in their postcodes to the Flood Map on the Environment Agency website, people can check whether they are in a flood risk area, and can follow advice to reduce the risk of flooding to their homes. Simple resilience measures can reduce the average cost of a household flood from £26,000 to below £10,000.

The summer floods demonstrated some hard lessons.

The biggest lesson is that adaptation to the impacts of climate change, not just floods but also heat and drought and impacts on health, must be as much at the forefront of all our agendas as reducing greenhouse gases to mitigate climate change.

The Draft Human Tissue and Embryos Bill

Phil Willis MP



The 1990 Human Fertilisation and Embryology Act – which built on the outstanding work of Lady Warnock and her committee – created a legislative platform for *in vitro* fertilisation to flourish in the UK for almost two decades. Indeed, despite many legal, ethical and procedural challenges, the Act has stood the test of time and has allowed not only clinical practice in IVF to flourish but significantly embryo research making the UK a world leader in this key area.

The Human Fertilisation and Embryology Authority (HFEA) set up as an arms length regulatory body has generally served the human fertilisation and embryology community well. The HFEA has many critics and its cause was not helped by the recent Taranissi case, but as the former Science and Technology Select Committee found when looking at Government proposals to regulate 'Hybrids and Chimera Embryos', the UK regulatory framework is greatly admired around the world.

The need to re-examine the legislation and the regulatory framework came, not from a sense of failure, but from its success. A highly influential Report, Human Technologies and the Law, produced in 2005 by the Science and Technology Select Committee, urged the Government to review the legislation to take account of advances in research and clinical treatment. Though slow to react the Government was forced into action when the HFEA, faced with potential new research requests for work on human-animal embryos, sought Parliamentary guidance. A Government White Paper produced in December 2006 proposed to ban the creation of cytoplasmic hybrid embryos – an organism consisting of at least two genetically different kinds of tissue as well as other kinds of interspecies embryos.

The outcry that resulted from the research community prompted the Science and Technology Committee to examine the proposals and conclude that regulation within a permissive legal framework was a more satisfactory way to proceed. The Department of Health listened and in July produced a Draft Human Tissue and Embryos Bill which proposed to allow by statute some research on a limited group of interspecies embryos.

Of course the Draft Bill also took the opportunity to update the law with regard to IVF treatment, taking into account research developments and societal changes. The Draft Bill sought to clarify issues as controversial as embryonic sex selection, the welfare of the child and removing the need for a father, IVF treatment for same sex couples, the register and confidentiality, surrogacy, saviour siblings, egg and sperm donation, embryo storage and permission to use techniques such as mitochondrial (cytoplasmic) transplantation.

In addition the Government sought to create a new regulatory authority, the 'Regulatory Authority for Tissue and Embryos' (RATE) by essentially combining the HFEA with the Human Tissue Authority (HTA).

The Government was right to seek pre-legislative scrutiny for such complex and potentially divisive proposals and I was privileged to chair the Draft Bill Committee which

contained some eminent and at times quite 'challenging' Members. After all, to have Lord Winston, the renowned fertility expert, Baroness Deech, a former Chair of the HFEA, and Lord McKay the former Lord Chancellor, (who had been responsible for writing parts of the 1990 Act) examining the proposals was challenge enough. However, combined with the likes of Dr Ian Gibson who chaired the 'Human Fertilisation and the Law' Inquiry, the Bishop of St Albans and the forensic mind of Lord Patrick Jenkin – it is safe to say the Draft Bill received excellent scrutiny from the Joint Committee despite the tight time constraints.

In all the Joint Committee made 31 recommendations to which the Government agreed in principle to 10, rejected 7 and partially accepted, deferred or delegated the remainder.

The flagship proposal to establish RATE was abandoned much to the delight of the BMA and virtually every other stakeholder who gave evidence. The fact that the Government accepted that confidence in IVF and embryo research was best retained through the current regulator, the HFEA, demonstrated, I believe, the spirit in which this crucial area of policy has been approached.

This approach was applied to other highly controversial areas where evidence from the Committee persuaded the Government to alter its position.

The Joint Committee had argued that trying to create different categories of interspecies embryos was misguided – that in effect once animal and human materials were allowed to mix in whatever quantities a line had been crossed and thereafter the quality of the proposal should be decided by the regulator.

Likewise we argued that having accepted the principle of 'saviour siblings' for 'life threatening' conditions using umbilical cord blood stem cells this practice should be extended to 'serious' conditions which would include life threatening by definition.

And as regards access to the register we proposed extending access to cohabiting couples and those planning intimate relationships which we felt was more in line with current societal positions.

However, central to the Joint Committee's thinking was the architecture of the Bill, which we thought should favour a more flexible approach within clearly defined parameters. We recommended that there should be a clear framework based on the principle of devolved regulation, this in contrast to the Government's desire for legal certainty. The strength of the 1990 Act was an element of 'future proofing' which we wanted to build into the new legislation by allowing the regulator greater freedoms. We did so, recognising the speed at which research – particularly that involving the development of embryonic stem lines was progressing. We did not want to create a situation where the regulator would constantly have to come back to Parliament for new permissions.

The Government opted for legal certainty but did accept that the HFEA should have more flexibility regarding licensing decisions with respect to a list of interspecies embryos as defined in the Bill. It further conceded that, provided the research was 'necessary and desirable', the HFEA should be able to license new research bids – a probable 'score draw' to use football parlance. I suspect there could be a breakthrough if both the Committee and the Government's desire to have a single comprehensive definition for all interspecies embryos could be realised.

As expected, the Joint Committee was divided in its views on some of the ethical and societal issues presented in the Draft Bill. The dropping of 'the need for a father' created heated but purposeful debate with well argued support for both positions. The Committee agreed this, like many of the research issues, should be put to a 'free vote' when the Bill comes before the House but suggested the Bill could be amended to incorporate the 'need for a second parent' seeking not to discriminate against single women or lesbian couples.

Of course the Joint Committee found it frustrating not to be able to call on an ethics committee in the House to advise on these hugely important issues. It must be a failing of our Parliamentary system that the Government and Parliament does not have its own committee to advise on ethics issues – which are, after all, at the heart of so much new medical research. The Committee considered access to a national bio–ethics committee but rejected that in favour of a Parliamentary Bio-Ethics Committee. Sadly this was one recommendation that the Government refused to sanction.

The Human Fertilisation and Embryology Bill is now passing through the House of Lords and not unexpectedly many of the arguments heard by the Draft Committee are being rehearsed again. The Bill is far more acceptable that when it began its journey in draft and as yet has not been subjected to amendments on the 1967 Abortion Act - that pleasure awaits the House of Commons. What was clear from the work of the Joint Committee was the need to take heed of Mary Warnock's wise words back in the late 1980s when she said "The law must not outrage the feelings of too many people; but it cannot reflect the feelings of them all. It must therefore be drawn with a view to the common good."

Wise words for scientists and ethicists alike.

Phil Willis MP
Chairman Draft Tissue and Embryos Bill
Chairman of Innovation, Universities and Skills Select Committee