

**Evidence submitted to the Environmental Audit Committee Inquiry
'Flooding: Cooperation Across Government'**

Lancaster University research team: Prof Maggie Mort, Dr Marion Walker and Dr Alison Lloyd Williams (Sociology) and Dr Amanda Bingley (Health Research)

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1. Overview

The evidence in this document is drawn from a series of empirical research studies 2007 – 2016 carried out by Lancaster University. Recent events such as Storm Desmond have shown that severe flooding should now be expected in the UK and the term 'unprecedented' in relation to floodwater has begun to lose its meaning. This is true not only for the people in Carlisle who are now flooded out of their homes for the second time in ten years or Cockermouth for the fourth time in ten years, or Hull where more than 8,000 homes were flooded in 2007, but it is true for areas such as Staines-upon-Thames where a complex combination of different types of flooding took many by surprise in 2014. Our work suggests that flooding and flood risk management is better seen as part of the national identity and something which the UK must now learn to accommodate. This however requires a thorough reassessment of how Government works together, as addressing the problem reaches way beyond the departmental remits and 'silos' referred to by other witnesses and evidence givers. The current EAC committee inquiry is therefore strongly to be welcomed and it is hoped that its findings will inform the current Letwin and Stewart inquiries.

Our evidence below draws on a series of interdisciplinary social scientific, in-depth qualitative research projects carried out with flood-affected individuals and communities

between 2007 and 2016¹. We gave evidence from our '2007 Hull floods' diary based study with adults to the Pitt Review. Our second study also in Hull worked with children because we found that their experiences and roles were not being attended to; it showed that during and after a flood while children and young people may have particular needs, they can also display resilience. Our most recent project: 'Children, young people and flooding: recovery and resilience', funded by the Economic & Social Research Council (ESRC), remains the only UK project working to understand the effects of flooding on children and is showing that children can also contribute to informing and preparing themselves, their families and their communities.

It is vital that the Government understands the effects of emergencies on children and young people so that policy can develop in ways that take account of both their needs and their contributions to resilience building, thus reducing the impact of future emergencies. However, children and young people are missing, virtually invisible to the emergency planning process in the UK and more widely, for disasters including extreme weather events, such as severe flooding.

For the sake of readability, our conclusions are given chronologically as we developed them, but each conclusion will be drawn together in Section 4 to illustrate how these address the Inquiry's Cooperation Across Government remit.

2. Research projects 2007-11

Flood, vulnerability and urban resilience: a real-time study of local recovery following the floods of June 2007 in Hull (www.lancaster.ac.uk/lec/sites/cswm/hfp)

Children, flood and urban resilience: understanding children and young people's experience and agency in the flood recovery process (www.lancaster.ac.uk/lec/sites/cswm/hcftp)

2a - A policy 'attention' shift is needed from flood response to flood recovery and resilience

Medd, W., Deeming, H., Walker, G., Whittle, R., Mort, M., Twigger-Ross, C., Walker, M., Watson, N. & Kashefi, E. (2015) The flood recovery gap: a real time study of local recovery following the floods of June 2007 in Hull, North East England. *Journal of Flood Risk Management* 8 (4) 315-328

Our research: '[Flood, vulnerability and urban resilience: a real-time study of local recovery following the floods of June 2007 in Hull](http://www.lancaster.ac.uk/lec/sites/cswm/hfp)', funded by the Economic & Social Research Council, Engineering & Physical Science Research Council, and Environment Agency (2007- 2009), focused specifically on the process of flood recovery and the impact that the recovery process can have on building future resilience. This project involved intensive stakeholder engagement from the start, with local, regional and national representatives informing the research as it unfolded and engaging directly with research participants. This was the first time that the flood recovery process had been 'captured' in this level of detail (this project was subsequently assessed as 'Outstanding' by ESRC).

Key findings:

i) Far from showing a steady process of improvement, flood recovery is punctuated by a distinct series of 'highs' and 'lows' closely tied with other events taking place in a person's

¹ Co-authors are gratefully acknowledged

life, and flood-affected people's experiences of the different agencies and private sector companies involved in the flood recovery process (e.g. loss adjusters, builders, insurance companies, but also agencies such as the local authority, EA etc.).

ii) 'Double trauma' occurs when the first disaster (the flood) is compounded by a secondary disaster in the form of poor treatment from the agencies and companies that are supposed to be helping with the recovery. The research identified a *flood recovery gap*, i.e. a gap between the legally-defined contingency arrangements, provided for the affected community by its public authorities and agencies, and the less well-defined services provided by the private sector (e.g. insurance, building industry).

In the acute phase the public sector is regulated i.e. in the response stage it has a duty of care. While trading standards apply to the private sector, this is not about 'duty of care'. The 'flood recovery gap paper' shows that householders are in the position that they are left needing to negotiate with the private sector (e.g. builders, insurers) to get the best deal they can and many people do not understand this, or have the requisite skills, and in any case are at their most vulnerable.

While the Civil Contingencies Secretariat has developed its National Recovery Guidance, this is very much a set of checklists which focus on recovery in the short term (Easthope & Mort 2014). The CCS has a tradition of focusing on the acute phase so fails to understand that the quality of recovery goes on to shape the quality of preparation for the next flood. In a context of frequent flooding this relationship between recovery and preparedness becomes more important (we develop this further below)

2b - The true 'cost' of flooding may not be understood

Walker, M., Whittle, R., Medd, W., Burningham, K., Moran-Ellis, J. & Tapsell, S. (2012) 'It came up to here': learning from children's flood narratives. *Children's Geographies*. 10: 135-150

Few accounts of flooding and flood recovery include the perspectives of children and young people and the role that they play before, during and after a flood. This neglect is particularly problematic given the increasing policy emphasis on building individual and community resilience as a strategy for coping with floods. It is also problematic in the context of policy shifts, from the United Nations down to national and local government, that recognise the rights of children and young people to have a say in decisions that affect their lives.

The ESRC/EA funded ['Children, flood and urban resilience: understanding children and young people's experience and agency in the flood recovery process'](#) 2009-11 involved a group of 46 flood-affected children and young people, and 16 adults who worked with children across the education, social services and health sectors.

Key findings:

i) Children have specific flood experiences that need to be understood in their own right. The disruption caused by flooding reveals and produces new – and sometimes hidden – vulnerabilities and forms of resilience for the children, young people and their families.

ii) Paying attention to flood affected children's insights can enhance our understanding of how to build resilience in practice. Children and young people's participation is critical to more effective flood risk management and community flood resilience.

2c - The emotional work of recovery cannot be separated from the physical and practical work of recovering the built environment

Whittle, R., Walker, M., Medd, W. & Mort, M., Flood of emotions: emotional work and long-term disaster recovery (2012) *Emotion, Space and Society*: 60-69

This paper draws on data taken from the two projects which examined adults' and children's recovery from the 2007 Hull floods. It allows a more nuanced understanding of how recovery is experienced and who is involved, and identifies hidden vulnerabilities and a better understanding of the longer timescales involved in the process. Many attempts to ascertain the impacts of disasters such as flooding do not extend much further than the identification of those homes and businesses suffering damage and fail to account for the complex ways in which people can be affected by disasters.

Key findings:

i) It is not immediately obvious who is affected by a disaster. In-depth exploration of the work which goes on within affected households can better identify those whose experiences may be otherwise overlooked. For example, children and young people may be missing from accounts of flood recovery due to the assumption that, since children are not homeowners/householders and do not tend to manage builders or insurance claims, they are peripheral to the recovery process. Yet we found that this is not the case, as children and young people showed how they both affect, and are affected by the processes of recovery within their homes, schools and communities.

Sally, was aged nine at the time of the flood and she and her family ended up living in a caravan for over a year whilst the repairs were carried out to her home. She found preparing for her Standard Assessment Tests (SATs) difficult in the restricted space of the caravan: "It was stressful because I was scared because I thought I was going to get a real low score" (p.64).

ii) Head teacher, Marilyn, was one of the 'frontline workers' interviewed who was grappling with the effects of the flood both in her workplace and her home:

'In addition to her regular responsibilities as head teacher, Marilyn was involved in "flood work" for what she described as "two traumatic years" because the school was left badly damaged after the disaster. In addition to overseeing the renovation of the buildings and arranging for the replacement of all the damaged furniture and classroom resources, Marilyn had to organise for the children to be taught on alternative premises, including organising transport for this.' (p.66)

2d - Plain English flood risk communication across Government

Whittle, R., Walker, M. & Medd, W. (2011) Suitcases, storyboards and Newsround: exploring impact and dissemination in Hull. *Area* 43 (4): 477-487

This paper is about 'the suitcase and the interactive workshop' which drew heavily on the words and storyboard images from the young participants in the Hull project. This resulted in active dissemination of the research to share and promote the findings to non-academic audiences in interesting ways. Recently completed research from the Environment Agency (Cotton, 2016) shows that the general public wants to know what it means to be flooded and how that will affect them and that this needs to be articulated in plain English rather than technical language.

For example, Public Health England advises the general public to stay away from 'contaminated water' and it is assumed that people will know what contaminated flood water is, along with the reasons for avoiding it. Consequently, Sherry's mother told her not to play in the water because 'it was all contaminated' but at the time Sherry didn't know what this meant. However, after seeing the water she said: 'I do now . . . It's like all dirty, it's got muck in it, it's like the drains'. Sherry's description is visceral, it conveys the message in the most effective way for a child to understand. Like the Flood Manifestos below, where the language used comes from people with direct experience of flooding, we argue it is more like to be effective.

3. Current research 2014-16

Children, young people and flooding: recovery and resilience
(www.lancaster.ac.uk/floodrecovery)

Research carried out in collaboration with Save the Children; funded by ESRC; five publications under construction

Children's Flood Manifestos demonstrate the fragmentation of existing flood policy

This project draws on in-depth work with two groups of flood-affected children and young people (aged 6-15). In rural South Ferriby (Humberside) homes, farms and businesses were flooded by a storm/tidal surge that travelled 3km inland in darkness in December 2013. We worked with primary aged children from South Ferriby School. In contrast we worked with a group of secondary students from urban Staines-upon-Thames with the cooperation of The Magna Carta School, located in an area severely flooded in February 2014.

The major outputs from this project (to date) are the Children's and Young People's Flood Manifestos for Change and a six minute [film](#) ([available to view on the Homepage at www.lancaster.ac.uk/floodrecovery](#)). We have also produced a 'Ten Tips' document for the how the insurance industry can better support families and children after flooding.

Key findings:

During the floods, children and young people played an active part in helping their communities:

Many children described how, during the floods, they assisted with moving furniture, putting items upstairs and identifying priority items to 'save', as well as helping elderly or disabled neighbours. Sara (13) explained: 'My village school... was the main centre where all the people who were saved from their houses were. Me and my sister and her friend went down to see if they needed help.... We just served food and made tea and coffee for the people who were going out and rescuing people from their houses... .. I felt quite good at myself then. I could have been home just watching TV and I was actually constructive and helping people.' Children were also involved in the recovery process. Helena (10) described how she and her friend gave up their horse-riding lesson to help another friend who had been flooded clean out their temporary rented accommodation: 'No way would we have let our friend have to do it all herself.'

The Children's and Young People's Flood Manifestos (which can be downloaded from www.lancaster.ac.uk/floodrecovery) were developed by both groups as a way to intervene and to exert some control over what for many children is a frightening future as they are acutely aware they are likely to be flooded again. The Manifestos call for further measures to prepare for, manage and recover from floods in the children's words and are reproduced below.

Children's Flood Manifesto

These are our ideas for how to make things better in the UK based on our experiences. We want you to listen to us and take action to make sure that children are better supported before, during and after floods.

Reference as:

Children's Flood Manifesto 2015, Children, Young People and Disasters: Recovery and Resilience, Lancaster University and Save the Children

<http://wp.lancs.ac.uk/cyp-floodrecovery/outputs>

We want better flood warnings!

- We should have more warnings, when we need them.
- Flood warnings should be on the radio and included in weather reports.
- Children should be given more information because they have the right to know what is happening.
- There should be buses that can take people somewhere safe.
- People should be told when it might flood and then they should get out of their houses so they don't get hurt.
- Everyone should know about the warnings, e.g. there could be a post that beeps when it's going to flood.

Families need to make sure they are prepared

- Make sure you have a radio, batteries, candles, torches, sandbags and food.
- Have someone who checks and understands the warnings.
- When it floods get your things and yourself upstairs.
- Put photos on a high shelf, bed or attic, because you can't retake them.
- Make sure pets are safe.

Flood lessons should be in schools

- They should start in Reception and keep going.
- Include flood tests at the end of the year, flood simulation events like a fire drill and a flood preparation game on the internet.
- Children should go on walks (once a month) so they get to know their local area.
- Children could write to the parish council, Prime Minister, Environment Agency or their MP to make flood defences better and help create plans.

Schools should support children during and after floods

- Schools could organise donations of supplies.

- Children should have time off school to help clean up.
- There should be a group to help children get happier after a flood.

We want better flood defences!

- More barriers or walls on the Humber, but not too big so we can still see the view.
- More sandbags from the council.
- Schools should not be built on flood plains.
- Schools should have flood defences or be built on stilts.
- Make sure the Humber Bridge stays open when it floods.

Help your family, friends and neighbours

- Look out for people who need more help e.g. people in bungalows and children.
- Help people get to the village hall.
- Let friends stay at your house if their homes have been flooded.
- Help your friends after the floods so they don't have to do it all themselves e.g. helping clean out rental houses.

Insurance companies need to listen to what we need

- People living in bungalows need special help.
- Children need special help.
- Houses need to be dried properly so they don't get wet again.

This Manifesto was developed by children from South Ferriby Primary School in North Lincolnshire as part of the 'Children, Young People and Flooding' project with Lancaster University and Save the Children 2014-2015. The project has also been working with children affected by flooding in Staines-upon-Thames. This work was funded by the UK Economic and Social Research Council. To receive a copy of the final report please email the project team at: floodrecovery@lancaster.ac.uk

For more details visit the website at: www.lancaster.ac.uk/floodrecovery

Young People's Flood Manifesto

These are our ideas for how to make things better in the UK based on our experiences. We want you to listen to us and take action to make sure that young people are better supported before, during and after floods.

Reference as:

Young People's Flood Manifesto 2015, Children, Young People and Disasters: Recovery and Resilience, Lancaster University and Save the Children

<http://wp.lancs.ac.uk/cyp-floodrecovery/outputs>

Flood warnings need to be clearer, so people understand them and know what to do

- Awareness could be raised via TV, newspaper, radio, social media like Facebook, and through music.
- Information should be put up in the community, like it is for fire safety, for example up on notice boards in Starbucks or in telephone boxes.
- Warnings shouldn't come when the floodwater is up to your waist - then it's too late!

Flood defences and protection need to be better

- Drains should be cleared out properly.
- More sand bags should be available - before it starts to flood.
- Build more flood defences and barriers.
- There should be more grants for flood gates and things to help make your house more resistant – and help with the red tape.

We should help each other more, especially those more vulnerable than you

- Families and communities should have a flood plan.
- Every household and school should have a 'flood box' with supplies, including food and water.
- Families with pets should be prepared to protect them, e.g. having a dog raft.
- Community patrols should look out for people still in their houses - and make sure there aren't any forgotten roads.
- Look out for people who need more help, like young children, older and disabled people.
- Create local community flood points – like fire evacuation points.
- Develop a Community Flood Fund – to raise money in case it floods again, to help people who are flooded to provide safety, comfort, and blankets/supplies.

Schools should support children during and after flooding

- During floods schools could provide areas for evacuation and food, open their grounds for parking, and offer sandbags.
- Schools should communicate more with flooded families; they could use text messaging as people may not have internet access.
- Open IT suite after school for students to do homework.
- Set up a group for children who've been flooded so they can talk and listen to each other.
- People who were flooded will still be affected for a long time afterwards: those who weren't will forget.

Flood education should be included in schools

- There should be lessons on emergencies and floods, including how to prepare, understanding priorities when it floods, where to go, survival and first aid.
- This has to be done from primary school onwards.
- It should be done without scaring children and include how they can help the community.
- It could be done in different parts of the curriculum e.g. in Personal, Social and Health Education.
- Use assemblies to inform students about flooding.
- Teachers should have training about flooding.
- Parents should be educated about how to help children e.g. at a parents' evening.

Flood insurance should be fairer

- More independent information should be available on what insurance companies can offer.
- Insurance should be cheaper.
- Insurance companies should make sure houses are dried out properly.

There should be more recognition and help for people affected by flooding

- There should be more help from the Government for people with disabilities.
- Financial support should ensure the floods don't cause poverty, this could help with the extra cost of food and washing clothes.
- There should be recognition that floods can lead to poor health, like bad diets if people can't afford healthy food.

This Manifesto was developed by young people from The Magna Carta School in Staines-upon-Thames as part of the 'Children, Young People and Flooding' project with Lancaster University and Save the Children 2014-2015. The project has also been working with children affected by flooding in South Ferriby, North Lincolnshire. This work was funded by the UK Economic and Social Research Council. To receive a copy of the final report please email the project team at: floodrecovery@lancaster.ac.uk

For more details visit the website at: www.lancaster.ac.uk/floodrecovery

Because they've survived floods (at considerable cost) these children draw on a form of expertise which comes from experience, but they are also not constrained by government bureaucracy. The multiple measures they identify in the Manifestos are needed to help prevent, prepare and recover from floods, regardless of whose task it might be to implement them. The children told us that what mattered to them was how they are treated by agencies and organisations; how they can look after their health; how they can find support from people who understand; and, a little later, how they can participate in resilience work so that they do not fall prey to fatalism and depression.

The children were aware that flooding will happen again and they want to be involved in addressing this. They also have considerable influence over their families, as evidenced in the great improvements which have been made in recent years over fire safety. A sustained programme of Fire & Rescue Service education in schools has resulted in a huge reduction in domestic fires (London Fire Brigade 2015). Children are aware of safety issues and have called for a similar programme in relation to floods. This resonates with a key finding of the larger seven-year cohort study of children's recovery from Hurricane Katrina, which indicates that children's participation as active citizens enhances their recovery and sense of control (Fothergill & Peek 2015).

In summary, the implications for policy are:

- Emergency policy and disaster planning must take account of children and young people as affected citizens
- The Children's and Young People's Flood Manifestos show important gaps to be addressed in current flood policy
- Policy development will be more legitimate and robust if it draws on the experiences and strengths of children and young people
- Educating children can have a wider impact on family and community resilience, as already demonstrated in fire prevention education

4. Conclusions

How Government departments and public bodies can better cooperate to offer coherent policy and action on flooding

The number of Government departments, public bodies and commercial sector organisations which have a role in flooding is very large and bewildering for the public.

All government departments should carry out a 'flood audit', to see how their practices and procedures either impact on flooding or can enhance flood resilience.

Flood recovery has been largely neglected by policy yet it is intimately connected to issues of preparedness/resilience; recovery and resilience are currently addressed by different sections of government.

Flood education as a whole is woefully inadequate: the Department for Education needs to address flooding both in the curriculum (not just in geography but in many other areas e.g. personal, social and health education) and in how schools are run and organised. School staff need training in how their students' education can be affected. Involvement of Fire & Rescue Service in schools and flood drills are called for.

Flood warnings not clear enough, there remains confusion between the Environment Agency and the Met Office systems and terminology. 'Yellow' warnings are routinely ignored.

5. References

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