

Chapter 6 The recovery gap: Learning the lessons

“The recovery phase begins at the earliest opportunity following the onset of an emergency, running in tandem with the response to the emergency itself. It continues until the disruption has been rectified, demands on services have returned to normal levels, and the needs of those affected (directly and indirectly) have been met. In sharp contrast to the response phase, the recovery phase may endure for months, years or even decades.”

(HM Government 2005 p.83, emphasis added)

“Recovering from a major event, such as the 2007 summer floods, is a long-term process taking many months if not years. Determining when an area has ‘recovered’ very much depends on the definition of the aims and objectives of the recovery phase made by those involved at its outset. In some cases, this will involve returning affected areas to their previous condition - ‘normalisation’. In other cases, the recovery phase will be seen as the opportunity for long-term regeneration and economic development.”

(The Cabinet Office 2008 p. 397)

The focus of this chapter is on what lessons can be learnt from this first in-depth, qualitative study into the experience and process of flood recovery. First, the chapter begins by summarising the key findings of the project by answering: What does the recovery process look like? What is involved in flood recovery? What is ‘recovery’? And, what are the impacts of flood recovery? Second, we identify the implications of our findings for the management of the recovery process. We do this by looking at the ‘recovery gap’ in two ways. First we identify specific areas of experience where there appear to be potentially straightforward solutions. Second, we highlight a number of framing issues, namely, institutional timing, an ethic of care, recovery workers and the built environment. The chapter then reflects on the project as a process and what lessons can be learnt from that for flood recovery in the future. Finally we conclude with some reflections on vulnerability and resilience before highlighting three further areas for research.

Our hope is that, by clarifying the nature of the problem of recovery and highlighting what we see as the potential areas for learning, this report will contribute to those conversations that will lead to changes that will make a difference to the experiences of flood recovery now, and in the future.

6.1 Understanding flood recovery

In this report we have presented vital insights into the varied and diverse flood recovery experiences of 44 diarists across Hull. Clearly every flood is different and the pluvial, urban nature of the incident in Hull resulted in its own distinct challenges. In particular, the fact that so many properties were affected across the country in 2007 resulted in a high level of demand being placed on the companies and organizations involved in recovery, with associated difficulties for the swift settlement of insurance claims and the

repair of homes. However, while the scale of the floods in 2007 may have made the problems of recovery more visible, previous research into the health and social impacts of flooding indicates that the issues experienced by residents were no different in character to those involved in other floods (Tapsell *et al.* 2002, Tapsell *et al.* 2003, Werrity *et al.* 2007). Consequently, this study provides us with important conclusions that transcend the distinguishing features of the Hull flood by giving an insight into the nature of the recovery process itself. The following sections highlight the main conclusions of the research and characterize flood recovery as a long and difficult process with no clear beginning or end point. During this time residents must work hard to recover not just the physical fabric of their property but also a sense of home, community and the future. Finally, the impacts of recovery for both residents and workers are shown to be linked to the ways in which the recovery process is managed.

6.1.1 What does the flood recovery process look like?

- Determining what a flood is, what caused it and who was affected by it is not as straightforward as we might first have thought. The patchwork nature of the water distribution, combined with the role of ‘expert’ judgements in ascertaining latent water damage can pose particular problems for those experiencing damage within their homes (see *What is Flood and Where Does it Come From? Section 3.1*).
- Far from showing a steady process of improvement, flood recovery is punctuated by a distinct series of ‘highs’ and ‘lows’ which are closely tied with other issues that are going on – and exacerbated – in a person’s life, as well as with people’s experience of the different agencies involved in the flood recovery process (see *Snakes and Ladders: A recovery journey? Section 3.4*).
- Nor is flood recovery something that ends when people move back into their homes – life does not necessarily go back to how it was before as there are aspects of everyday life which have fundamentally changed – both for better and for worse (see *An end point to recovery, Section 3.4.2*; and *From a House to a Home, Section 5.1.2*).
- Our study found particular issues facing (1) private renters as rising rents and a shortage of suitable accommodation pushed them to the margins of the housing market in ways that disrupted their family life, strained their finances and endangered the health of their children (2) council tenants who had little control over the timing and standard of their flood repairs (3) elderly people who had trouble coping with the disruption and displacement from their homes, which, in some cases resulted in a loss of both confidence and some of the skills needed to live independently (see *Specific vulnerabilities, Section 3.3*). However, although some specific vulnerabilities can be identified, it is also important for key agencies to consider the role that the recovery process plays in producing vulnerability because, as this report shows, recovery poses its own particular challenges (for example, dealing with builders and managing an insurance claim) that can lead to vulnerability emerging in complex and unexpected ways.

6.1.2 What does the process of flood recovery involve?

- Whether diarists found themselves becoming ‘project managers’ of recovery or experienced a ‘waiting game’ while other people made decisions about their lives, the recovery process involved new and often psychologically challenging kinds of physical, mental and emotional work (see *Householders as project managers, Section 4.1*).
- A prominent feature of flood recovery for many diarists was the work of having to acquire new skills and knowledge to be able to challenge ‘expert’ judgements of what constituted an acceptable level of service (see *Householders developing new skills and questioning expertise, Section 4.2*).
- During the recovery process, a large amount of time and effort must be put into everyday tasks such as travelling to work, getting to school, cooking and washing etc. (see *Managing everyday life, Section 4.3*).
- The work of managing everyday life involved the mental and emotional work of juggling different responsibilities and identities that are integral to daily life (see *Managing roles and identities, Section 4.4*).
- Front line workers played an important part in the recovery process and such work generates its own vulnerabilities reflecting the forms of support on offer to residents as well as pressures from their organizations, their relationship with the public, and for some, the difficulty of also managing their own flood recovery process (see *Front line workers, Section 4.5*).

6.1.3 What does ‘recovery’ mean?

- Flood recovery is about rebuilding a sense of home which, for some, involves gaining more than they have lost, while for others, it involves the stress of learning to live in a new internal environment where memories have been stripped away (see *A sense of home, Section 5.1*).
- Recovery also concerns the reshaping of the social and physical landscapes of the community as the web of allegiances shift throughout the recovery process; it involves a readjustment – rather than a return *per se* – to a new and altered set of circumstances (see *A sense of community, Section 5.2*).
- People’s sense of the future also changes in different ways, with some fatalistic attitudes towards rain, climate change and government bodies emerging. However, others are engaging in debates about public participation and local knowledge in how the built environment is managed, and are developing their own ‘resilience’ strategies for future floods (see *A sense of the future, Section 5.3*).

6.1.4 What are the impacts of recovery?

Having clarified the nature of flood recovery, the work involved and the negotiated nature of what recovery actually means, we are in a strong position to make sense of the ‘impacts’ of floods and flood recovery:

- Numerical attempts to catalogue, measure and compare flood damage (e.g. correlating degree of impact with depth of water) are of limited use in terms of trying to understand the humanitarian needs after a flood because they are a) incapable of accounting for non-financial, ‘intangible’ aspects of flood damage and b) they do not account for the ‘secondary’ impacts i.e. the prolonged stresses that residents are exposed to during the recovery process that have implications for physical and emotional health. The depth of the flood itself makes little difference to the subsequent disruption experienced by the resident, particularly because it is standard practice to ‘strip out’ the entire downstairs of an affected room, regardless of what level the water reached. However, the practice of the ‘strip out’ is, itself, being questioned (see Martin’s story on p.36 and Section 6.4 *Future Research*).
- The mental health impacts of flooding are both important and real and householders may well need help to deal with these. However, it is important to be clear about the source of these problems. An overt focus on ‘flood’ as a mental health issue (BBC News 2008) can encourage responders to pathologise what is in fact “a normal reaction to abnormal events” (Convery *et al.* 2008). The main problem with such approaches is that they imply that the problem lies with an inherent weakness in the householder, rather than with the ways in which the recovery process is managed. As we have argued, it is the ‘secondary stressors’ resulting from the poor management of recovery, which are more distressing for residents (see Laura’s story on p.46) and which must be tackled as a priority.
- Flood recovery affects everything: it cannot be separated from the ‘other’ issues that go on as part of everyday life – for example, work problems, family illness and everyday responsibilities. Indeed, flood recovery also impinged upon households not directly impacted by the flood (See Sophie’s story on p.44).
- Many people had to cope with the double trauma that occurs when the first disaster (the flood) is compounded by a secondary disaster in the form of poor treatment from the various companies and agencies that are supposed to be helping with the recovery (see Laura’s story on p.46).
- The impacts of ‘flood’ are also felt by front line workers who can be vulnerable in the recovery process after disaster. This is particularly so for those in the dual role of worker/resident, for whom the difficulties involved in frontline work may be amplified (see Section 4.5).

6.2 Addressing the ‘recovery gap’

If the impacts of flood are as much to do with the recovery process as the flood event itself, then it follows that we must explore how the ways in which the recovery process is managed can lessen any negative impact. In this section we identify the key implications from the research. We do so by first, identifying some very specific issues that could be addressed and second, with some more general reflections on the framing issues involved in designing support measures for recovery.

6.2.1 Specific ways to address the recovery gap

As described in Section 2.1, the recovery gap emerges during the longer process of recovery at the point where the legally-defined contingency arrangements provided to the affected community by its local authority diminish and where the less well-defined services provided by the private sector (e.g. insurance, building industry) start.

So how can this recovery gap be addressed? The table below gives some examples of what this recovery gap looks like in practice. This table is not meant to be an exhaustive list of the problems of flood recovery. However, it does highlight some of the more common issues highlighted by this report. The table has seven columns: the first two identify the nature of the problem and who it affects. The third column describes what we see as being the nature of the gap that leads to that particular problem. The fourth and fifth columns describe some suggested solutions that the diarists and we as researchers have come up with to reduce these problems. Here, the diarists' perspective has been taken from 'Diarist Recommendations for Flood Recovery' – a list that diarists prepared during a group discussion of things which they found helpful and unhelpful after a flood (see Appendix 4). The sixth column – which has been filled in with the help of our steering group members, attempts to capture some of the most recent efforts to address these issues – for example, in the form of changes that may have been made following the publication of the Pitt Review (Cabinet Office 2008).

The seventh column is blank – it is for you to fill! We feel you, the reader, and your colleagues, are better placed to interpret the implications for your work than we are. The blank spaces are intended to encourage you to reflect on how your own organization, or those of the people you work with, may be able to help.

The table does not include a column to specify which organizations should be responsible for taking the various actions listed. This is because much of the important work that must be done in order to address the recovery gap will involve challenging the lack of communication and coordination between the various different agencies involved. The table is intended to counter such fragmentation by provoking a debate that encourages policy makers and practitioners to think collectively about how to resolve the issues contained within it. It may be that, in some cases, there is an obvious organization that could extend its role to address a particular gap. However, in other cases, the issues may benefit from a more holistic rethinking of the ways in which various agencies work together.

We are also aware that we have not included all the problems of flood recovery in this table and, for this reason, you will see that we have also included some blank rows at the bottom for you to add your own concerns – these may not relate only to residents. Instead, they might be some particular problems that your own organization has to deal with during flood recovery.

Table 2 Specific Ways to address the recovery gap

WHO IS EXPERIENCING THE PROBLEM?	AREA OF PROBLEM	NATURE OF PROBLEM	What is the nature of this GAP?	What did diarists say they wanted?	What actions on these issues have already been taken? (For example, in the wake of the Pitt Review)	What are the opportunities for filling the gap? Some suggestions from the diarists and research team...	What might your organization do?
	Emergency response	Insensitive handling of flood-damaged possessions	Need for empathy and alternative ways of dealing with possessions	A more sensitive approach that acknowledges items have sentimental as well as material value		Do all possessions really have to be disposed of? (Information given regarding 'contamination' was inconsistent.) Could some things have been cleaned and restored instead? Collection workers to be trained to deal with residents and their possessions in a more sensitive manner; codes of practice for specialist 'Disaster Restoration Companies' (e.g. through training compliant with 'Investors in People' accreditation; Armstrong, 2000)	
Household level of support	Insurance and repair	Difficulties contacting and getting a response from the insurance industry – loss adjuster doesn't return calls and no one else can help (see Laura's story p.46)	The need for consistent service and point of contact	Single point of reliable contact; continuity of service	Insurers and loss adjusters have reviewed their procedures and learnt lessons from the 2007 floods. Some insurers and loss adjusters now provide single points of contact for flooded customers. Insurers and loss adjusters did set up temporary offices in Hull and other flooded areas in 2007	Temporary offices by insurance agencies within locality? Better coordination within the company so that case notes are available to colleagues when loss adjuster is unavailable? These colleagues to be able to help by providing information, authorizing signatures etc.	
		Worries about raised premiums/policy excesses and not being able to get insurance cover in the future	The need for affordable insurance cover for all	Council/government to subsidise high excesses through indemnity insurance	Last year the ABI reached an agreement with the government for insurers to continue to offer cover to as many customers as possible as long as the government take steps to	Reconsider the potential need for reform of existing insurance arrangements and the potential benefits of national collective insurance system; "Insurance with rent" schemes to get more protection for the uninsured	

					manage flood risk properly ¹	(e.g. by targeting the national Housing Association; the National Landlords Association etc.)	
		No control over repairs process for council tenants; delays; poor workmanship	The need for a consistent point of contact with contractors and consistency in standards of workmanship	Priority given to most vulnerable households; better communication with council's partner contractors; a consistent standard of work across homes	In the light of 2007, the ABI issued advice to customers on what they should expect from their home insurer, including on the timeframe for repairs. The advice is available on the ABI website www.abi.org.uk	A dedicated information point for residents to be able to ask about the timing and standards of their repairs; clarity over what repairs are needed and when they are to be completed; a realistic and continually updated timetable for repairs; surveyors to inspect repairs and standard of building work; prioritization of the most vulnerable	
		Not knowing what constitutes an acceptable standard for the repairs (see discussion, p.93)	The need for independent advice and advocacy	Information regarding the surveyor's report (i.e. what work is to be undertaken and what this will cost); an independent surveyor to come and inspect the finished work to say if it is worth the money spent on it	To be dealt with under amendments to the Flood and Water Management Bill	Residents to be given more information about the schedule of works and the value of their claim; independent surveyors to visit after works completed to check correct action has been taken	
		Poor workmanship/'cowboy' builders (See Amy's story, p.71)	Need for more quality control of builders	More use of local companies; builders' cheques to be sent direct to householders for issue only when they are happy with the work that has been done	In selecting builders, insurance companies want to know that they have the capability and expertise to provide what is needed to do the job right. They have national contractor networks and panels of specialist builders to enable them to react quickly to any event, wherever it occurs. Some on those panels will be undoubtedly drawn from local contractors, or	More checks on building work; local directory of approved builders that should be used in preference to firms from outside the local area; cheques to be sent to householders in cases where householders commission their own contractors. In other cases, the insurance industry should resource a final visit to the property so that they can inspect the work with the householder and sign it off jointly	

¹ This includes sustained investment, which is required over a 25 year period, to improve the country's flood defences which have suffered chronic under-investment. The knock-on effect is felt by customers who are flooded badly and then find their properties expensive to insure. Under the agreement, ABI members commit to: A) Continue to make flood insurance for domestic properties and small businesses available as a feature of standard household and small business policies if the flood risk is not significant (this is generally defined as no worse than a 1.3% or 1 in 75 annual probability of flooding). B) Continue to offer flood cover to existing domestic property and small business customers at significant flood risk providing the Environment Agency has announced plans and notified the ABI of its intention to reduce the risk for those customers to below significant within five years. The commitment to offer cover will extend to the new owner of any applicable property subject to satisfactory information about the new owner.

					will use subcontracted labour within the area ²		
		Delays in settlement of insurance claims and no covering of costs upfront	Need for more streamlined claims and approvals process	Faster issuing of payments; covering expenses up front (as opposed to having to pay yourself and then claim it back); prioritization of the claims of vulnerable residents e.g. the elderly, the disabled etc.	Clearly things can go wrong with insurance claims, but insurers should seek to look after their customers and be sensitive to their circumstances	Insurers to recognize that they have duty of care to customer; reduced paperwork/bureaucracy; increased sensitivity to people's circumstances	
		No resilient reinstatement – houses returned to pre-flooding condition & thus vulnerable to future floods	Lack of agreement over who will pay for resilient repair; lack of building expertise and supply of materials	Advice and help installing flood resistance and resilience measures; these measures to be reflected in reduced insurance premiums	The ABI working with the National Flood Forum, the Environment Agency and the Chartered Institute of Loss Adjusters is about to issue a leaflet aimed at flooded households offering them advice on resilient repair. To be dealt with under amendments to the Flood and Water Management Bill	Changes to building regulations to make resilient repair mandatory? Schemes to encourage training of builders and surveyors in resilient repair & develop supplies of materials and technologies; installation of measures to be reflected in terms of insurance	
		The strip out – resulting in extensive and costly disruption to the home and months/years of displacement for the family (see Martin's interview, p.36)	Need for more surveying and building expertise about different forms of building restoration	Less disruption; to be away from their homes for as short a time as possible	Again insurers have learnt lessons from 2007 and are less inclined to strip out properties now	Better research and training for insurers, builders and surveyors so that homes are not disrupted needlessly? Maybe stripping out does not need to be done/not done as extensively in every case?	

² Insurers will work with their customers in businesses and households to help them get back on their feet, and more local contractors are likely to be sub-contracted by insurers and loss adjusters as they seek to repair properties once they have dried out. Customers can also choose to have a preferred builder if they wish. But insurers will wish to ensure that their service standards are met and that customers end up with their homes and businesses repaired properly.

Other forms of provision	Not knowing what help/assistance was available from which organizations	The need for information about what assistance is available and for whom	Clarity over eligibility criteria for assistance; more information about what help is available and where to access this		An information leaflet – preferably prepared, at least in template form, as part of the contingency planning process – that can be distributed quickly to all residents giving details of support services with relevant contact details; advertising in local media	
	Not knowing how to manage the recovery process	The need for advocacy services	A supportive intermediary who could explain the process and give advice – a disaster coordinator? Perhaps volunteers?	ABI's new guidance on Recovery ³ Guidance contained in National Recovery Guidance under humanitarian aspects section	Dedicated advice services that people can visit for support; better links with the National Flood Forum who can provide information to residents on what to expect and how to cope; better use of the expertise of those who have been flooded before and can help explain the recovery process to people	
	No continuity of service from GP when moved out of area into rented accommodation	The need for consistent service and point of contact	To be able to see their usual doctor	Attempts have been made to get GPs to see patients outside a given radius of the practice but no changes have been achieved to date.	Residents to continue to visit their home GP except in special circumstances where this would create too many problems	
	Lack of rental accommodation; no security of tenancy for existing private renters; difficulty securing rented properties from letting agents (see Holly and Sam's story, p.49)	The need for fairness, transparency and empathy from estate agents and landlords	Fair rental prices; honoring appointments for viewings; a code of practice for estate agents; more security for long-term tenants		A code of good practice for estate agents administered by the NAEA which outlines their duty of care to the customer – tenants could then find out if their agents or landlords are signed up to this before signing any agreement; regulations to prevent landlords 'cashing in' on the disaster by raising rents; legislative changes to provide more security for long-term tenants through tenancy agreements (landlords to be legally responsible for finding alternative accommodation for their tenants in a flood event); recourse through small claims court if landlord is not fulfilling this role	

³ http://www.abi.org.uk/Publications/ABI_Publications_floods_Responding_to_major_What_to_expect_from_your_home_insurer_92a.aspx

		Feeling isolated and alone with your problems	Lack of spaces for people to meet, talk and share experiences	To be able to share experiences with others		The importance of creating or using existing collective spaces in the aftermath of a project where people can come and talk without an agenda	
		Unsympathetic treatment by utilities and other companies e.g. banks etc. (for example, threatening letters for non-payment of bills because the company has failed to register a change of address, reconnection charges when moving back in, etc.)	The need for more flexibility to be able to deal with customers' changed circumstances	Better communication and record keeping; more empathy to the resident's situation		Again, companies to recognize that they have an ethic of care to customers; Overriding of automatic letter delivery systems which wrongly threaten residents with legal action; flexibility to cancel reconnection charges for those moving back into their homes	
		Needing time off work to cope with flood repairs – not all employers were willing to give this	Need for more flexibility in working practices	A national scheme (perhaps covered by insurance policies) allowing people time off in the event of a disaster	Government is working on Corporate Resilience Strategy, due 2010. Also working to provide support and guidance to small and medium size organizations to address the needs of business continuity planning	More flexible working arrangements; better support for employees	
	Management of infrastructure	Worries about drainage management issues	Need for more coordination and public participation in drainage management issues	Want to see more drains being cleared; to know what is being done to prevent future flooding; to be able to participate in decisions being made about drainage management; street level contingency plans	The forthcoming Flood and Water Management Bill requires the Lead Local Flood Authority to consult with the public about its local flood risk management strategy	More liaison with members of the public about what is happening; public engagement and consultation to harness local knowledge; see also our response to the Draft Floods and Water Management Bill (appendix 9)	
		Lack of clarity over who is responsible for the drainage system (see p.106)	Need for more coordination and public participation in drainage management issues	A key agency to take responsibility for the drainage system so that agencies cannot keep passing their responsibilities off onto others		See our response to the Draft Floods and Water Management Bill (appendix 9)	
		Confusion about flood warning systems	Need for more coordination and a unified approach	A clear and comprehensive warning system that covers all types of flooding and which operates across all media e.g. TV, Radio, Floodline etc.	The Environment Agency have commissioned some scoping R&D on 'assessing the options and feasibility of developing a flood warning system for surface water'. This project seeks to appraise the success to date of	A clear and comprehensive warning system that is locally appropriate and which covers all types of flooding and which operates across all media e.g. TV, Radio, Floodline etc.	

					Extreme Rainfall Alerts, and to assess the options and feasibility of developing Environment Agency operations to provide a Flood Warning process for pluvial events to professional partners and the public ⁴		
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Support for front line workers	No support or understanding from employers of what they have been going through (especially those also affected at home) (See Michaela and Natalie's story on p.87)	Need for more flexibility in working practices	Employers to be understanding of employees situations and recognize that they may need time off to deal with problems at home	Government is working on Corporate Resilience Strategy, due 2010. Also working to provide support and guidance to small and medium size organizations to address the needs of business continuity planning	More support for workers, especially those affected at home; employers must find out which of their staff have been affected and what their needs are; employers to say 'thank you' and find ways of making their staff feel valued and acknowledging the extra work they have put in	
	Long hours, little chance for breaks	Need for fairer, more flexible working arrangements with sufficient cover to allow time off for workers	All employees should have their basic needs cared for (e.g. in terms of food, drink, rest and equipment) as a priority and over the longer term duration of this work		Better contingency planning and flexible working practices so that staffing issues are planned – and employee needs catered for – in advance of an emergency	
	No assurances about overtime/time off in lieu when working very long hours in the aftermath of	Need for employers to have continuity arrangements for how working would	Clarity over pay and working conditions		Employers and employees to be clear about how working will be organized during an emergency and the recovery period; clarity	

⁴ The Environment Agency have set-up the 'Flood Warning Service Improvements Projects' (FWSIP) to improve the quality of the flood warning information we provide to our customers. This is in response to the summer 2007 floods, and the findings from the Pitt Report. These projects will improve the flood warning service so that the EA can: 1) Move away from a 'one size fits all' warning service. 2) Provide professional partners with more effective advice to stimulate improved action. 3) Develop an improved set of public warning messages and codes capable of use for all flood risks with greater emphasis on action and what needs to be done. 4) Encourage personal and community engagement in managing flood risk.

	the emergency	be organized during an emergency			over how 'business as usual' will be adapted	
	No opportunities to debrief and share experiences with colleagues	Need for more flexibility in working practices	To be able to support each other		Employees to create opportunities for colleagues to chat and share experiences	
	Having to follow instructions that they knew were wrong (e.g. being told they had to door knock on streets they knew weren't affected/having to close cases that were still experiencing problems – see Charlotte's story p.88)	Need for more flexibility in working practices	To be able to use their knowledge and discretion to solve problems more effectively		A less bureaucratic approach to management that allows employers to learn from the experiences of employees	
Your issues						
Your issues						

6.3 Framing issues for recovery

While the table above helps capture the characteristics of the recovery gap and encourages some reflection (and action) on how the gap can be addressed, we also think there are a number of framing issues that set the possibilities for taking recovery seriously. We support Pitt's recommendations for establishing Recovery Coordinating Groups⁵, however, in doing so, we think there are also some fundamental framing issues to be addressed to do with the ways in which recovery is conceptualised and managed:

6.3.1 Developing more flexible notions of 'recovery' in formal frameworks

Guidance on recovery is focused mainly on improving procedures and responsibilities in relation to the impacts on and business continuity of formal responding (e.g. HM Government, 2009; Home Office, 2000). Similarly, support for 'relief' by charities or other organizations is often provided within particular timescales that do not necessarily reflect the needs on the ground (see section 3.4.2). Yet, as our work shows, recovery is more complex than existing frameworks for recovery delivery allow. From the perspective of householders, and indeed the communities they are a part of, the very starting points of 'disaster' vary and nor is there a clear end point to recovery. Furthermore, the process of recovery is not a linear progression in the direction of continuous improvement, rather there are ups and downs that take people forward and back in terms of improvement from their flooded state to a more manageable, everyday, non-flooded state. Indeed, as Pitt points out, the recovery process may involve a process of normalisation, however, it may also require processes of long-term regeneration and economic, social and physical revitalization for a community (Cabinet Office 2008). Recognition of the diversity of recovery processes needs to be embedded within the formal frameworks of support agencies.

6.3.2 Developing an 'Ethic of Care'

Our research has shown that there is a very clear link between how flood recovery is managed and how residents feel about – and are able to make progress with – their recovery. We propose that key deliverers of recovery work could adopt an 'ethic of care' to the householder. To do this will require:

- Encouraging different companies and organizations to recognize their role in delivering the recovery process (e.g. loss adjusters, 'disaster restoration companies', drying companies, builders etc.)
- Sanctioning and legitimizing the ethic of care by organizations explicitly focused on recovery (for example, the Cabinet Office and local government) and from the professional bodies representing the various trades involved (for example, the Association of British Insurers).

⁵ "Recovery Coordinating Groups (RCG) provide multi-agency strategic decision making structure for the recovery phase. Their composition is typically decided by the lead local authority depending on the nature of the emergency. RCGs decide the overall recovery strategy, including communications, clean-up, health, welfare, and economic and business recovery plans. Furthermore, and most crucially, RCGs also ensure that relevant stakeholders, especially the communities affected, are involved in the development and implementation of the strategy (The Cabinet Office 2008, p. 372).

- Including support for ‘front line workers’ within this ethic of care: “Agencies need to ensure they look after the physical, emotional and psychological welfare of staff – managers should be trained in what to look out for in both the short and longer term” (CCS 2009 p.174). It will be important to remember that it is not always obvious who is a frontline worker – many people in apparently unrelated positions can have their jobs – and stress levels – affected by disasters.

6.3.3 Building in spare capacity and capability

Consistent to research on disaster management is the need for spare capacity and capability within institutions to be able to respond to the uncertainties that unfold during and after a disaster (Perrow 1999 and Wildavsky 1988):

- Both capacity and capability may emerge from more informal working practices rather than those documented in protocols and job descriptions. Care needs to be taken to ensure that economically defined evaluations of roles and responsibilities do not miss such ‘hidden’ work.
- As well as examining the extent to which there is such capacity and capability within formal responding and recovery organizations (notably local authorities) our research also reveals the significant work undertaken by the ‘3rd sector’ including local churches, community groups, business enterprises and voluntary sector organizations. This supports work which states: “*statutory responders should be aware of the capabilities and capacity of local voluntary organisations and the means of accessing their services, whether as individual volunteers or as members of local or national volunteer organisations*” (CCS 2009 p.54).
- Capability and capacity in part arises from flexibility and there is a need to learn from and respond to the experiences of workers as well as diarists during the process of recovery. Front line workers were sometimes inhibited by the ‘rules’ of their organizations (see e.g. Charlotte’s account p.88) while householders experienced considerable frustration in relation to their interactions with some organizations (e.g. Laura’s story p.46). Promoting greater flexibility in terms of both institutional roles and individual job descriptions (so as to allow workers to make better use of their local expertise) could therefore be very beneficial.
- Capability and capacity also emerge through facilitating and funding a broader, community-based resilience approach, where there is cooperation between formal organisations and community groups (both during normal working and during emergencies) and by encouraging coordination and information sharing (thereby also increasing the chances of being able to identify particular and otherwise hidden vulnerabilities).

6.3.4 Enabling ‘collectives’ and new forms of learning and engagement with policy

Our project process has inadvertently brought to our attention the lack of space currently given to people during the recovery process to talk and share their experiences, and to be heard by, and listen to, key representatives from public and private sector organizations. Our project methodology adapted to include more group discussions with the diarists and to create a workshop whereby diarists and

representatives from different organizations (including central government, local government, regulators etc.) could come together and learn from each other. Key lessons from this process appear to be threefold:

- The importance of creating a context for people to share their experiences where they could learn from and support each other – the project emerged as one of the few places where such a collective was facilitated (see section 2.3.5 on *Group discussions*). Opportunities for representatives from different formal agencies, including central and local government, to talk with householders in a facilitated context can create unanticipated opportunities for learning – for residents to learn about changes that are taking place, and for representatives from formal organizations to learn about the experience of being on the ground (see section 2.3.7 on ‘*Stakeholder Participation*’ and *Box 3*). The process we have developed is therefore more than just a research methodology in that it provides a potentially powerful tool for public participation in policy making (see section 2.3.7).
- The key role that academia can play in helping to change policy and practice by presenting and discussing emerging findings with policy and practitioner communities from an early stage in the research. Our project used both a wider network of contacts accessed through our steering group and a more formal process of responding to government enquiries and consultations⁶ to influence policy (see *Stakeholder Participation*, section 2.3.7).

6.3.5 Understanding and addressing vulnerability

The research started from the premise that there are different kinds of vulnerability – in particular, it is important to distinguish between vulnerability to *experiencing* a flood and vulnerability to the *impacts* of that flood. However, the project resulted in further insights into how vulnerability is understood and managed after a disaster. Specifically:

- While vulnerability may, in part, be related to pre-existing social characteristics (we have highlighted particular issues associated with older people, council tenants and private renters) this study shows that it is the interaction of these factors with the specific circumstances operating in a person’s life – many of which may be completely unrelated to flooding – which determines how and when they may become vulnerable (see Section 3.4 on *Flood Recovery Timelines*). Viewed in this way, it is important to understand that vulnerability is a dynamic process (as opposed to a static characteristic of a particular person or group).
- Crucially, vulnerability is related to the ways in which the flood recovery process is managed. There are thus specific issues associated with the recovery process (for example, difficulties in sourcing alternative accommodation or renewing insurance policies) which may both *produce* and *reveal* new kinds of vulnerability (for example, see *Box 7 It wasn’t just those who were flooded* and *Box 17 The impacts on others through changes to care work*).

⁶ See the summaries of the project’s consultation responses in Appendices 6-9.

- This presents a challenge for the ways in which vulnerability is identified and managed by local authorities and other organizations involved in recovery. While specific indicators such as age and disability may provide a sensible starting point for workers (see the FLOSS database on p.31), our research suggests that it is also necessary to give workers greater freedom when defining vulnerability so that they can use their knowledge and experience to take account of the contingent and dynamic nature of vulnerability in ways that allow them to prioritise help to those who need it most.

6.3.6 Building resilience

Our ultimate concern from this study is to identify the lessons from the experience of households and front line workers in Hull for building resilience in the future. This journey has been one that certainly sheds light on the complexity of resilience. Resilience is not something that can be reduced to large scale engineering nor household level structural changes. Resilience is manifest within individuals and families, their relationships within communities and networks of support, within their interactions with forms of government and third sector service providers and within the relationship between these ‘social’ relationships and the ways in which the built environment is managed. As such, simple protocols or design will not build resilience. There are, as we have identified, key messages of actions that could be taken building on the experiences of our diarists and engagement with stakeholders. However, to build resilience for the future will require looking more fundamentally at the characteristics of contemporary social life and the vulnerabilities that society therefore generates, at how these are manifest within our built environment and reproduced through our institutional frameworks set up to respond to floods and other disasters. We need to keep hold of the ways in which forms of resilience and vulnerability were created, revealed and disrupted during the flood and, significantly, the flood recovery process. And we need to learn from these – we hope this report has gone some way towards contributing to this learning process.

6.4 Future Research

Finally, our study highlights three specific areas for future research:

- *A need to examine and evaluate the norms, practices and disputes around the recovery of the built environment.* This study shows that some of main impacts of flood recovery relate to the loss and disruption of a person’s home environment (See Section 3.2.2 *Disruption to home* and Section 5.1 *A sense of home*). However, as discussed on p.36 damage management consultants and surveyors are increasingly questioning the need for such drastic remedial measures as ‘the strip out’. In particular, there is much debate about the relative efficacy of different drying methods – all with different implications in terms of the level of disruption experienced by the householder and the consequences for energy efficiency and climate change. This subject was beyond the scope of the present project and yet clearly there is much potential for further investigation into a) the relative scientific merits of different forms of drying and reinstatement technology and b) the nature of

the relationships that exist between builders, insurers and the damage management industry which act to influence the decisions that get made about which technologies to employ in any given set of circumstances.

- *A need to examine the role that the insurance industry plays in flood recovery.* This research illustrates the key role that the insurance industry plays in the flood recovery process on a variety of levels – from influencing residents’ feelings about recovery and levels of confidence in the future, through to the physical and economic practicalities of what repairs are actually undertaken and how these are completed. The insurance industry is also key to discussions of resilience and vulnerability, particularly in the context of climate change, thus making it an important subject for future research.
- *More research into the impacts of flooding upon private renters.* As demonstrated in Section 3.3 *Specific Vulnerabilities*, private renters experienced particular problems during the recovery process that led to them becoming vulnerable in ways which were unexpected. Although our study did capture some of these issues, there is a need for further research which is able to capture their specific circumstances in more detail.
- *Analysis of the legal and policy framework around recovery gaps.* In addition to the more general ‘framing’ challenges that we have highlighted, Table 2 identifies a series of specific ‘recovery gaps’ along with potential solutions and actions that have already been taken since the floods of 2007. To make best use of this table, it will be necessary to do two things: a) Identify gaps in existing legislation, codes of practice or ways of working which allowed these problems to occur. b) In cases where such frameworks already exist, identify why problems continue to occur – for example, is the existing legislation inadequate or is it simply not being enforced correctly?