



Recommendations for changes in UK National Recovery Guidance (NRG) and associated guidance, from the perspective of Lancaster University's Hull Flood Studies

Hugh Deeming¹, Rebecca Whittle, Will Medd

Lancaster Environment Centre, Lancaster University, Lancaster, LA1 4YD

Final Report

Acknowledgments

The authors would like to thank the Cabinet Office and the EPSRC for funding this research, as a follow-on to the two Hull Floods Projects. They would also like to gratefully acknowledge the help and advice given to them in the preparation of this report by the following people: Dr Marion Walker (Lancaster University); Dr Alison Gilchrist; Prof. Margaret Ledwith (University of Cumbria) as well as to the Hull Diarists who kindly gave up their time in order to give the project some important 'flood survivor' perspective.

¹ Address for correspondence: h.deeming@lancaster.ac.uk

Executive summary.....	i
1. Introduction	1
2. Lancaster University’s Hull Projects.....	1
2.1 The Hull Flood Project	1
2.2 The Hull Children’s Flood Project.....	2
3. Setting the Scene: a clarification of working definitions.....	3
3.1 Resilience.....	4
3.2 Recovery	7
3.3 Event and Consequence Vulnerability.....	9
4. Identifying consequence vulnerabilities in Hull	10
4.1 The consequences of the ‘Recovery Gap’.....	11
4.2 The consequences for children and young people.....	12
4.3 The consequences for Frontline Recovery Workers	14
4.4 Community emergency planning, for recovery	17
5. Discussion and recommendations: thinking about recovery, from the bottom up	23
6. Recovery as problem solving	26
7. Recommendations.....	27
7.1 New approaches	27
7.1.1 Reducing the recovery gap.....	27
7.1.2 Frontline Recovery Work (FLRW) issues.....	30
7.1.3 Improving services for children and young people experiencing long-term recovery effects	31
7.2 Text changes to National Recovery Guidance	31
7.3 Tools for recovery.....	34
“Flood Snakes and Ladders”: The Hull Project Flood recovery game	34
8. Suggestions for future research	35
8.1 Identifying the role of Local Authority Community/Localism staff in recovery.....	35

Appendices	41
Appendix 1: Supplementary Briefing Note.....	41
Appendix 2: The Hull Floods Project: Executive Summary.....	47
Appendix 3: Hull Children’s Flood Project: Executive Summary.....	50

Acronyms and Abbreviations

CCA	Civil Contingencies Act
CEP	Community Emergency Planning
CP	Civil Protection
ERR	Emergency Response and Recovery
IEM	Integrated Emergency Management
NFF	National Flood Forum
NRG	National Recovery Guidance

Executive summary

Report context:

This report was commissioned by the Civil Contingencies Secretariat (CCS) following the publication of Lancaster University's [Hull Flood Project](#) and [Hull Children's Flood Project](#). Its principal purpose is to identify how findings made as a result of the two research projects could be integrated into the Cabinet Office's [National Recovery Guidance](#) (NRG), as a means to improve affected communities' ability to recover from emergency events.

The report, in effect, details a desktop analysis of UK Civil Protection (CP) guidance, from a bottom-up perspective (i.e. using as its critical lens, the lived experiences of members of the public who were tested by the Hull flooding of 2007 and its aftermath).

The Projects:

Following the 2007 floods in Hull, the researchers worked with 42 flooded residents over an 18 month period using in-depth qualitative techniques (e.g. diaries and group discussions) designed to capture the recovery process in real time. During the course of this project, the idea for the children's project emerged from conversations with diarists, who were worried about the impacts that the recovery process was having on their children and grandchildren. In total 46 flood-affected children took part in the sibling project; some of whom were flooded at school but not at home and others were flooded both at school and at home.

Clarification of definitions:

As a means to elaborate and corroborate the contention expressed in NRG, that recovery is a "complex social and developmental process rather than just a remedial process", the concepts of Resilience, Recovery and *Event* and *Consequence* Vulnerability are defined. It is shown that these concepts are closely interlinked in the way they can influence a flood-affected individual, household, or community's 'journey' through the recovery *process* toward rehabilitation.

Taking this perspective the importance of regarding recovery coordination as an opportunity to problem-solve, rather than to 'command and control', is discussed. Four themes, which bear relevance for the CP-sector are then introduced and problematised.

Recommendations for how these problems could be mitigated are introduced (Table 1) and suggestions are made for changes to the text of the current NRG.

Table 1: Themes and recommendations

Theme identified	Recommendation made
<p>The consequences of the ‘Recovery Gap’: It has been found that people regarded their experiences of the recovery process to be worse than their experience of the original flood event. The recovery process is, therefore, implicated in creating vulnerabilities and increasing the likelihood that people’s recovery journey will be made more difficult. For example, NRG currently fails to acknowledge the existence of the ‘recovery gap’, which exists at the point where the assistance that is provided by the Civil Protection (CP) Sector ends and the services that are supplied by the private sector after a flood start.</p>	<p>Even if they were to have a plan, after an event, social groups may be vulnerable to ‘recovery-gap effects’. However, these groups may have their capacity for self-help bolstered by the provision of flexible ‘sign-posting and ‘hand-holding’ advice and arbitration services.</p> <p>There should be an investigation of what role Local Authority staff, such as community-development workers or ‘community organisers’ can play as recovery facilitators. The aim would be to formally recognise what functions these professional <i>boundary people</i> have served in their communities after past emergencies. Such understanding could lead to a training programme, through which these staff could learn to identify recovery-related issues and to spot opportunities to create forums where affected communities could share experiences and by doing so, build their own capacity for developing self-help solutions</p>
<p>Community Emergency Planning (CEP), for recovery: It is suggested that, in the context of the recovery gap, CEP has limited value in influencing how the recovery process is experienced (i.e. how do you plan for how to negotiate with insurance, loss adjusters, builders etc.?)</p>	
<p>The consequences for children and young people: The lack of guidance that is explicit to the needs of children and young people is highlighted. Particular note is made of the fact that ‘recovery gap’ effects can have life-changing implications for this group (i.e. they can influence exam results).</p>	<p>It is recommended that any schools that have been affected by a disaster, or that take in students from other disaster-affected schools, should be strongly encouraged to seek outside expert guidance on how to best identify and assist any child or young person who might be disadvantaged by event or consequence effects.</p>

Theme identified	Recommendation made
<p>The consequences for Frontline Recovery Workers: A typology of four categories of ‘Frontline Recovery Worker’ illustrates that current guidance fails to recognise that a ‘surprising’ range of workers have the opportunity to positively influence community recovery, whilst also being exposed to significant work-related pressures.</p>	<ul style="list-style-type: none"> • Emergency Planning staff should be encouraged to expand their links across a wider range of Local Authority departments and voluntary-sector organisations. This should be done in order that effective contingencies for the mitigation of <i>consequence</i> vulnerabilities can be co-developed in slow time • A principal priority of the RCG should be to develop strategy that is fully informed by this frontline experience (i.e. there must be a way for information about community needs to travel from the bottom up, not just from the top down), e.g. it should be advocated that a ‘Community Team’ representative sits on the RCG community engagement sub-group • It is also recommended that the value and challenges of frontline recovery work should be formally acknowledged, with an amendment to Chapter 7 of ‘Emergency Response and Recovery’

The Hull Project Recovery game “Flood Snakes and Ladders” is introduced as a **tool**, which could be used in a number of training environments in order to teach participants about the complexity of the recovery process.

Finally, an initial proposal for a project to investigate the role of Local Authority ‘Community’ staff in long-term recovery is outlined.

A briefing note drawn from this report is attached (Appendix 1)

1. Introduction

This report was commissioned by the Civil Contingencies Secretariat (CCS) following the publication of Lancaster University's [Hull Flood Project](#) and [Hull Children's Flood Project](#) reports. Its principal purpose is to identify how findings made as a result of the two research projects could be integrated into the Cabinet Office's [National Recovery Guidance](#) (NRG), as a means to improve affected communities' ability to recover from emergency events. In addition to its main remit of drawing on lessons learned from the specific context of the Hull 2007 floods, it also includes insights from more recent, informal research that both authors have undertaken following flooding in Cumbria (Nov, 2009) and Cornwall (Nov, 2010). Equally, although flooding is the focus of the case studies discussed, where appropriate, more generic issues that may bear relevance to other kinds of emergency are highlighted.

The report, in effect, details a desktop analysis of UK Civil Protection (CP) guidance. However, this analysis was carried out in a bottom-up sense (i.e. using as its critical lens, the lived experiences of members of the public who were tested by the Hull flooding of 2007 and its aftermath), rather than by taking a top-down institutional perspective. Accordingly, as requested by the Cabinet Office during commissioning, the report goes further than simply attempting to identify where minor wordings or nuances might be changed within existing templates and guidance documents. It proposes ways in which the *process* of post-emergency recovery (as it is currently 'delivered' by the CP sector) could be envisaged slightly differently by that sector. This is done as a way to place NRG within a context that bears greater relevance to hazard-affected populations and to the more inclusive forum of agencies and institutions, over and above the Local Resilience Forum membership, which inevitably engage during recovery.

Although the project was undertaken with respect to the statutory provisions detailed in the HM Government document [Emergency Preparedness](#), and the non-statutory guidance described in [Emergency Response and Recovery](#), the focus of the analysis concentrates on NRG and its associated guidance resources (e.g. the [Recovery Plan Guidance Template](#)).

2. Lancaster University's Hull Projects

2.1 The Hull Flood Project

Following the summer floods of 2007, a team from Lancaster University travelled to Hull, where over 8,600 homes were affected and one person died, in order to carry out a 2-year

investigation into what the long-term flood recovery process was like for people (Coulthard *et al.*, 2007; Whittle *et al.*, 2010)². During the study, the researchers worked with 42 flooded residents over an 18 month period using in-depth qualitative techniques designed to capture the recovery process in real time. The methods used were based on a successful study of community recovery following the 2001 Foot and Mouth Disease outbreak in Cumbria (Mort *et al.*, 2004). Upon recruitment, the participants gave an initial semi-structured interview which enabled them to tell their story of the floods so far. At this point they were introduced to the weekly diary booklets that they were encouraged to keep throughout the duration of the project. The diaries started with a few simple 'warm up' questions where participants were asked to rate their quality of life, relationships with family and friends, and health using a simple scale ranging from 'very poor' to 'very good'. However, the main section of the diaries was the 'free-text' part, where they were encouraged to write about their lives that week. To complement the diaries and interviews, the participants also met for group discussions at quarterly intervals during the project where they were able to discuss the issues that were facing them as a group.

The final element of the methodology was a project steering group, which comprised local and national organisations with an interest in flood recovery³. During the study the diarists engaged directly with the steering group through a series of group discussions and facilitated meetings, resulting in a high level of impact on policy and practice. For example, the project was used as a case study during the development of the Cabinet Office's Strategic [National Framework for Community Resilience](#). A more detailed summary of this project appears at the end of this report (Appendix 2).

2.2 The Hull Children's Flood Project

The idea for the children's project emerged from conversations with diarists taking part in the main Hull Flood Project, who were worried about the impacts that the recovery process was having on their children and grandchildren. The existing project was unable to capture these impacts and, as a result, Lancaster University launched a 'sibling' project which looked at

² 'Flood, Vulnerability and Urban Resilience: A real-time study of local recovery following the floods of June 2007 in Hull' was funded by the Economic and Social Research Council (ESRC), the Engineering and Physical Sciences Research Council (EPSRC) and the Environment Agency www.lec.lancs.ac.uk/cswm/hfp

³ The Hull Study had a steering group comprising the following organizations: Association of British Insurers, Humber Primary Care Trust, Cabinet Office, JBA Consulting, Diarist, Middlesex University, Environment Agency, National Flood Forum, Hull City Council, North Bank Forum, Hull Community and Voluntary Services, University of Cumbria, Hull Residents and Tenants Association, Yorkshire & Humber Neighbourhood Resource Centre.

children and young people's experiences of long-term flood recovery in Hull (Walker *et al.*, 2010)⁴.

In total 46 flood-affected children took part in the project; some of whom were flooded at school but not at home and others were flooded both at school and at home. The researchers worked in two schools that were badly affected by the floods, i.e. both schools were evacuated on the day and then closed for strip out and refurbishment. Of the young people involved, children from the two schools totalled 42, comprising 25 pupils from the primary school and 17 pupils from the secondary school. We used storyboards (where participants drew pictures or used creative writing to tell their stories), followed-up by short one-to-one interviews and group discussions. We also conducted telephone interviews with four flood-affected young people, accessed through the youth team in Hull. Finally, we worked with 18 adults, involving interviews with key service providers and frontline workers.

The Children's Project also recruited a steering group that linked in to the steering group for the adults' project, but with the addition of specialists in children and young people's issues⁵. A more detailed summary of this project appears at the end of this report (Appendix 3).

3. Setting the Scene: a clarification of working definitions

In order to provide some context for the discussion, it should be understood that the focus of this report is on using the Hull research findings as a lens through which to critique the UK Civil Protection sector's current six-phase Integrated Emergency Management (IEM) approach⁶ to the delivery of long-term recovery.

Straight away, it could be suggested that using an IEM approach, recovery only appears to bear relevance as a final stage; as a means to arrive at an aspired destination. However, if IEM is viewed as a cyclical process, it also becomes the first stage of the iterative management approach. Accordingly, decisions made in relation to this phase will likely influence the future resilience or vulnerability of any particular hazard-exposed population to future hazard impacts.

⁴ 'Children, Flood and Urban Resilience: Understanding children and young people's experience and agency in the flood recovery process' was funded by the ESRC, the Environment Agency and Hull City Council www.lec.lancs.ac.uk/cswm/hcfc

⁵ Additional representatives on this steering group included the University of Surrey, Hull City Council Children and Young People's Services Departments and representatives from the participating schools.

⁶ The six phases of IEM are: anticipation; assessment; prevention; preparation; response; and recovery management (HM Government, 2005: p.8)

Therefore, it becomes important to define here what *resilience*, *recovery* and *vulnerability* should be understood to mean, in terms of this report.

3.1 Resilience

It is acknowledged that the definition of what constitutes 'resilience' has become fertile ground, which has been sown from a variety of different perspectives (e.g. Adger, 2000; Folke, 2006; Gallopin, 2006; Klein *et al.*, 2003), one of which encompasses the investigation of what resilience means in terms of UK Civil Protection (e.g. Coles & Buckle, 2004; Medd & Marvin, 2005; O'Brien & Read, 2005). Focusing on this civil protection perspective, the 'After the Rain' final report (Whittle *et al.*, 2010), looked at resilience in terms of how it could be applied to the understanding of recovery from flood events. Taking this approach, resilience was broken down into four principal conceptualisations:

- Resilience as resistance
- Resilience as 'bounce-back'
- Resilience as adaptation, and;
- Resilience as transformation (*ibid.* p.11)

Importantly, it was revealed that these four types of resilience are not mutually exclusive and that they need not remain constant throughout the recovery period. On the contrary, dynamic effects are revealed, as different types of resilience take precedence at different stages of the process⁷. As a result of this finding, Whittle *et al.* argued that even though it can be categorised in these four distinct forms, resilience needs to be understood:

...in terms of relationships and processes rather than as a static characteristic of an individual, household, public service or community. In other words, "resilience" is not so much a response to the flood hazard itself, but is an emergent characteristic of the way in which the flood response and the subsequent recovery process are managed. (*ibid.* p.12)

⁷ "First, we need to think about how types of resilience might be supportive rather than exclusive. A householder may be better prepared to "bounce-back" because of the adaptability of the social networks around him/her. Second, therefore, the resilience of one entity – the individual, the household, the home – is a characteristic that emerges partly in relation to wider social, infrastructural and institutional networks. For example, the resilience of a community is partly enabled precisely by the resilience of the infrastructure networks (drains, communications, transport) as well as of key services required. Third, and crucially, what resilience is – and as a strategy what is appropriate – shifts over time. During an event, resilience might be manifest as resistance and the ability to withstand the shock while during recovery it is manifest in terms of a community's ability to regenerate" (Whittle *et al.*, 2010: p.12)

Accepting this understanding of resilience as an emergent characteristic is important for two key reasons. Firstly it shows us that resilience is fundamentally about the ability to recover (this is a point that we return to in Section 4.4). Secondly, we can see that how the recovery process is managed is crucial to the development of resilience. In short, we must accept that building resilience into a hazard-exposed community is more complex than just getting people to adopt preparedness procedures such as signing up to warning systems and preparing 'grab-bags' of medicines and important documents⁸. Instead, we must understand that a person's exposure to the recovery-process itself, can stimulate or degrade their resilience.

With this in mind, it now becomes appropriate to look more closely at how resilience is currently defined within relevant UK Civil Protection guidance.

In terms of identifying a dominant conceptualisation of resilience that is used by UK Civil Protection practitioners, it quickly becomes clear that there is an element of discontinuity in the general approach. For example, the [Lexicon of UK Civil Protection Terminology](#) (Version 2.0.1), definition of resilience refers to the:

Ability of the community, services, area or infrastructure to detect, prevent, and, if necessary to withstand, handle and recover from disruptive challenges

Taking the four types introduced above, this definition appears to relate to a system's ability to either resist or to 'bounce-back' to its pre-existing state. In effect the lexicon definition gives precedence to system continuity, which is inferred within these two types, rather than the system-changing resilience that is achieved through adaptation or transformation.

However, in its recently published *Strategic National Framework for Community Resilience*, the preferred definition derives from the Demos report '*Resilient Nation*' (Edwards, 2009), which defines resilience as:

"The capacity of an individual, community or system to adapt in order to sustain an acceptable level of function, structure, and identity." (Cabinet Office, 2011: p.10)

This is an important progression from the Lexicon definition, as it introduces the concept of resilience as adaptation. However, whilst this definition recognises the potential of adaptation, it should be remembered that there is considerable evidence that ostensibly-resilient individuals, communities and societies (i.e. social entities) faced with hazards can actually be so because they favour actions that could be seen as, not adaptive in a positive sense, but actually

⁸ See Deeming and Whittle (in prep) discussion paper for the Cabinet Office on Community Resilience

maladaptive (e.g. using insurance as a means to simply reinstate flood-damaged properties with exactly the same vulnerabilities as before: Cutter & Emrich, 2006).

The ability to adapt is not, therefore, as straightforward as the Demos definition suggests. But, looking more closely, it can be seen that the Demos definition is itself derived from an antecedent, which would be much more recognisable to disaster researchers, and which could be said to bear much greater salience for those who are interested of the complexity of the recovery process and the mitigation of that process' resilience-inhibiting effects. The definition originates from the United Nations International Strategy for Disaster Reduction, which defines resilience as the:

“...capacity of a system⁹, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.” (UN/ISDR, 2004)

In this original - full - formulation, three additional factors are made explicit beyond the Demos truncation:

- (1) Resilience can be seen as not merely being indicated by adaptive potential, but, explicitly, by the ability of a social entity (e.g. individual, household, etc.) to resist, bounce-back, adapt, or transform in the face of particular stimuli (in this case, hazards)
- (2) Resilience is seen as being dependent on the capacity of a social entity to self-organise (i.e. rather than simply respond to external coercion)
- (3) Resilience should not be judged simply in terms of a social entity's ability to adapt (i.e. change itself), but that to provide *positive* benefit (i.e. risk reduction), this adaptive change needs to be supported through the building up of an increased capacity for experiential learning

Whilst the first point is useful, because it is always important to know what stressors there are that will test a system's resilience, the second and third points are even more noteworthy. Training and preparation will always remain fundamental to effective IEM (Alexander, 2002). However, suggesting that everything can be known in advance and planned for – in terms of how a hazard may behave or about how a social entity may respond to a hazard stimulus – is a fallacy (Clarke, 2005; Perrow, 1999). Therefore, the self-organisational abilities, of improvisation and flexibility in newly-emergent situations, and the creative thinking that can be

⁹ In this context 'system' should be treated as a synonym for 'social entity'

enhanced through learning, are here explicitly affirmed as vital indicators of system resilience (Kendra & Wachtendorf, 2003).

In terms of investigating recovery, the [re]introduction of these three characteristics of resilience to our definition, provides an important perspective through which appropriate recommendations for recovery policy may be identified within the Hull project data.

3.2 Recovery

According to the Civil Protection Lexicon, recovery is defined as the:

Process of rebuilding, restoring and rehabilitating the community following an emergency or disaster, continuing until the disruption has been rectified, demands on services have been returned to normal levels, and the needs of those affected have been met

This is a useful definition, because it lays out a pathway to what might be considered to be three recognisable goals. A community's recovery can be seen as finally occurring at a point where (1) hazard-induced disruptions are corrected (2) demands on services have returned to pre-existing (i.e. normal) levels and (3) when the needs of those affected have been met.

Strategically, the return of agencies and organisations to positions where they are operating within mainstream budgets and their staff are carrying 'normal' workloads could be viewed, in these terms, as indicators of wider community recovery. However, in terms of the final clause – meeting 'the needs of those affected' – this is a much more subjective and, therefore, harder to quantify goal.

From this 'greyer' perspective the definition is given some extra context in the document [Emergency Response and Recovery](#), which explains that recovery:

... is more than simply the replacement of what has been destroyed and the rehabilitation of those affected. It is a complex social and developmental process rather than just a remedial process. The manner in which recovery processes are undertaken is critical to their success. Recovery is best achieved when the affected community is able to exercise a high degree of self-determination. (HM Government, 2009: p.101)

This is a very useful clarification, because it acknowledges the complexity of recovery as a long-term social and developmental *process* (Nigg, 1995). However, even with this clarification, what the definition fails to make clear is that the phases of rebuilding (of physical structures), restoration (of physical systems and social patterns) and the rehabilitation (of the population, e.g. through a return of confidence) often do not follow a linear upward path (Rubin & Popkin, 1990; Whittle *et al.*, 2010). Recovery, particularly as it is experienced at the household level,

can be better described as a journey delineated by an unpredictable sequence of physical and emotional ups and downs, which can significantly speed or retard any perceived return to 'normality'.

This roller-coaster trajectory is well characterised in a timeline produced by Caroline¹⁰, one of the Hull diarists (Figure 3.1), who clearly illustrates the sometimes quite subjective (and yet always affecting) frustrations, pressures and pleasures she experienced in the months following the flood.

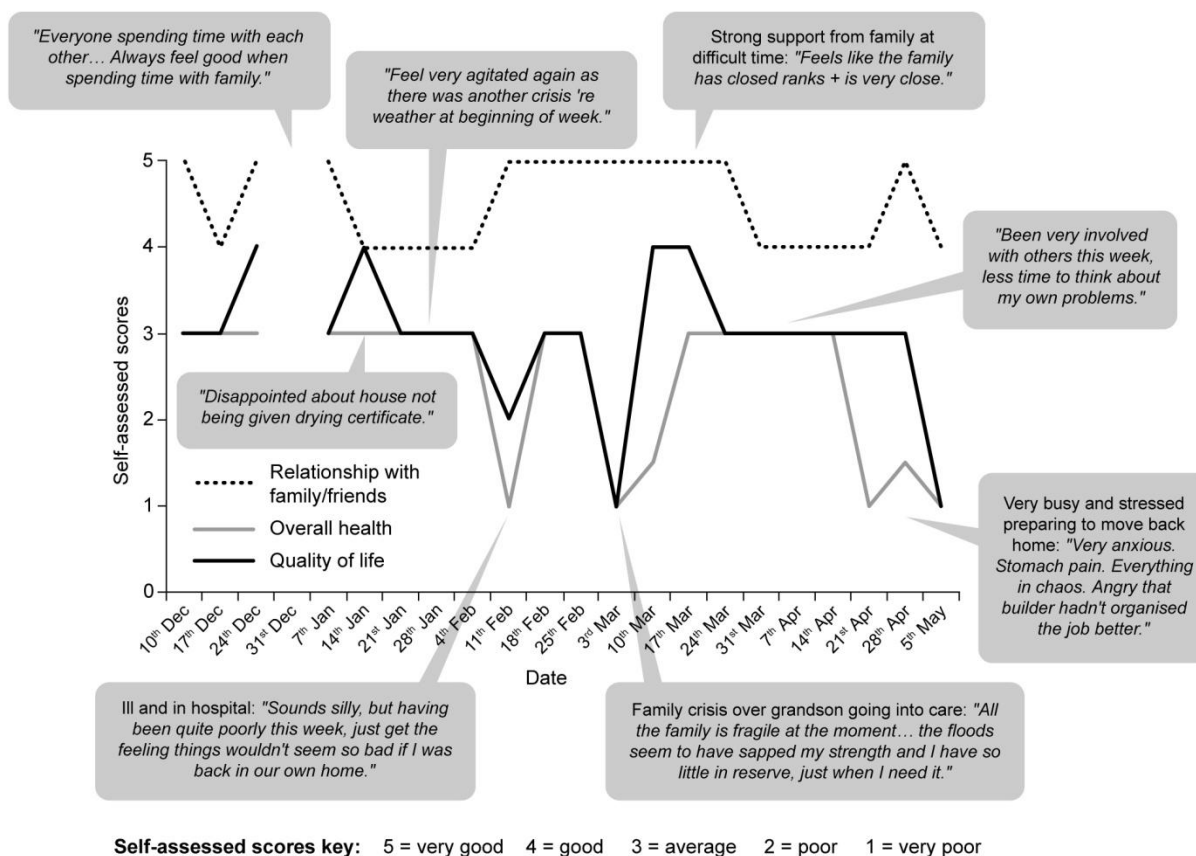


Figure 1: Caroline's Timeline. An example of a householder's psychological journey through recovery

Effectively, for those like Caroline who experienced these events, the floods themselves were only the start. What the Hull projects revealed was that the experience of flood recovery persists long after the rain and flood waters have gone. It extends long after the emergency services have returned to their day to day duties. It is, therefore, an experience marked in part

¹⁰ Pseudonym

by coming to terms with the impact of the flood event itself. However, it is through the process that follows, in the struggle of rebuilding the social and physical fabric of homes and communities, that the impact of flood is most felt. The process of recovery is one that carries with it the challenge of adjusting to displacement (caravans, living upstairs, rented accommodation, living with family), managing the process of physical recovery (loss adjustors, insurance companies, builders, retailers), trying to maintain “normality” in everyday life (work, school, child care, illness, deaths, births, celebrations) and trying to rebuild social life (adjust to a new home, new community relations, build trust in the future). It is one that disrupts, reveals and produces forms of both vulnerability and resilience, forms that appear only on the margins of policy frameworks for support. **It is perhaps no wonder then that the Hull-study participants regarded their experiences of the recovery process to be worse than their experience of the original flood event.**

What this non-linear path illustrates then is that, in order to ‘deliver’ effective recovery, there is a need to take account of and to develop contingencies for effects that only emerge over the long-term. This need is particularly acute given that a further key conclusion of the Hull Studies is that vulnerability to hazards is not a static concept, which can be defined solely with reference to socio-economic criteria such as age or income (Walker *et al.*, 2010; Whittle *et al.*, 2010; Wisner, 2001). Instead, vulnerability was found to shift over time as the ways in which the recovery process was managed intersected with people’s personal and family circumstances (for example, illness and family crises, as we saw in Caroline’s example). Given such conclusions, the principal consideration should, therefore, be finding ways to determine when and why particular groups or individuals become vulnerable during the recovery process, and what can best be done to mitigate that condition. In order to help with this task it might be useful to take a social-vulnerability perspective and, particularly, an idea introduced by Nigg and Miller (1994), who suggested that hazards and ensuing disasters should be acknowledged as revealing two types of vulnerability (i.e. *event* and *consequence*).

3.3 Event and Consequence Vulnerability

Event vulnerability was originally conceived as a term to describe the fragility of certain individuals and social groups to earthquakes, or their susceptibility to loss from such exposure. Expanding this concept to include flooding, it is clear that certain groups can indeed be regarded as particularly vulnerable to this hazard too (e.g. the poor, the elderly, the disabled, children, households containing child carers of dependant adults: Thrush *et al.*, 2005; Ramsbottom *et al.*, 2005). Also, at a national scale, populations experiencing multiple

deprivation (which can include high proportions of these vulnerable groups) have been shown to be disproportionately exposed to sea-flood hazards than are less-deprived (more resource-full?) populations (Walker *et al.*, 2006).

Consequence vulnerability, on the other hand, is less to do with an individual's physical frailty and more to do with their susceptibility to the wider, indirect, impacts of the event and its aftermath. Crucially then, this concept can be used to illustrate how the mismanagement of recovery may result in those who were not originally vulnerable becoming so in the longer-term. For example, low-income private-sector tenants may well be physically fit and able to avoid injury during a flood, but, they are more likely than others to be uninsured (Priest *et al.*, 2005) and, therefore, bear increased susceptibility to the irredeemable loss of personal property and possessions. Tenants can also find it particularly hard to find suitable alternative accommodation after an event or, even worse, can have their situations taken advantage of by unscrupulous landlords (e.g. by being made to maintain full rent payments in order to stay in unrepaired and unhealthy properties: Dash *et al.*, 1997; Whittle *et al.*, 2010)¹¹. Adults, though, are not the only ones to bear consequence vulnerabilities; as we will see in Section 4.2's discussion of children's experiences, below.

4. Identifying consequence vulnerabilities in Hull

The differentiation between event and consequence vulnerability is useful in terms of helping to understand what affected populations are experiencing and, particularly, why sometimes unexpected vulnerabilities can evolve as the emergency shifts from its response phase and enters the more nebulous dimension of recovery. In effect, it provides a wider perspective on how vulnerability should be assessed by CP practitioners, than has yet been substantively written into guidance (e.g. see '*Identifying People Who Are Vulnerable in a Crisis, Guidance for Emergency Planners and Responders*': Cabinet Office, 2008). This section will add to this understanding, by using the concept of consequence vulnerability as a lens through which to examine four different aspects of recovery, which could be said to represent particular blind spots in current guidance.

¹¹ Whilst conducting the Hull research and during fieldwork following the Cumbria flooding in 2009, the authors heard anecdotal evidence that private tenants were staying, quietly and without drawing attention to themselves, in unhealthy flood-damaged properties, because they feared that it would be impossible to find suitable alternative accommodation in the area.

4.1 The consequences of the 'Recovery Gap'

A major outcome of the Hull studies has been the addition of the 'Recovery Gap' concept to the CP vocabulary. The 'recovery gap', is something that appears during the longer process of recovery, at the point where the legally-defined contingency arrangements, provided for the affected community by its public authorities and agencies, diminish and where the less well-defined services provided by the private sector (e.g. insurance, building industry) start. For some, the gap can open very quickly, whilst for others its arrival is slower and more pernicious. Taking a vulnerability perspective, the use of the recovery gap concept helps to illustrate a pre/post-event vulnerability differentiation, by explaining why even ostensibly 'resilient' people (e.g. those who *are* insured), can also experience unpredictable recovery journeys, not as a result of the original hazard agent, but due to the fact that they are involved in a *process*. A process that is not being driven by themselves, but by the actions of others (e.g. to achieve formal settlement, they are reliant on insurers and loss adjusters communicating with each other as well as with them).

So, returning to the definitions briefly, in addition to failing to peg the non-linearity of the recovery *process*, the CP definition of recovery implies that the management of this process can be understood – when viewed from the strategic level – to only require the provision and coordination of a relatively exclusive selection of all the assistance that an affected community actually requires and/or values during the period. The repair of roads and bridges is *undoubtedly* a vital driver of community recovery, and represents positive action that is easy to quantify in terms of success. However, at the household level, the 'juggling' skills that are required to cope with the day-to-day pressures, the dealing with displacement, the need to develop additional 'project-management' skills and the need to maintain and rebuild normality for the household, requires more than fixed roads and more even than re-opened shops and cleared drains.

Therefore, whilst it is absolutely correct to portray recovery as a "complex social and developmental process", there is one particular factor that current guidance still fails to engage with at any substantive level. That is that the principal reason that many recovery journeys are so arduous, is the fact that, in the UK, the delivery of the thing called 'recovery' does not simply involve public, voluntary and community-sector actors delivering *assistance* (e.g. rest centres, repaired bridges, one-off aid payments: Quarantelli, 1999). Instead this is actually an arena

where many ‘survivors’¹² also need to ‘negotiate’¹³ the best value possible for themselves from private-sector *services* (e.g. insurance). Looking at recovery in these terms, it becomes clearer that in large part, recovery is not something that is experienced as a community enterprise, but something that has been reduced to a much more individualised level (Deeming *et al.*, in press). Arguably, this individualisation makes recovery harder for residents, particularly for those who have no prior experience of nurturing the skills needed during this time (such as knowing how to make an insurance claim or how to project-manage builders), as it leaves them with no point of comparison and, therefore, no way of knowing if the companies they are dealing with are managing their case in a fair or proper way. So if dealing with household insurers, loss adjusters and builders is very much a one-to-one activity, this begs a question: If significant numbers of people are being isolated and/or made vulnerable by this individualising experience, is NRG currently comprehensive enough so as to alert the appropriate organisations to their plight in order that appropriate agencies can implement contingencies for this group?

Looking at Recovery Guidance from this bottom-up perspective, it becomes clear that there is a disconnect between what institutions such as the Recovery Coordination Group (RCG) are geared to provide (e.g. public meetings, temporary housing, clean streets and waste collection), and the *additional* requirements of the affected public (e.g. their need for advice on how to deal with an authoritarian insurance agent, so as to avoid being left with an unfair or inadequate settlement). This disconnection will be returned to later.

4.2 The consequences for children and young people

Whilst they can be surprisingly resilient to a hazard *event* (it can actually be quite exciting), children and young people form one group who can experience significant *consequences* throughout the roller-coaster ride of recovery; a group whose needs are only touched upon within current recovery guidance.

The Hull Children’s Project revealed that *all* children and young people should be considered as potentially vulnerable during recovery. This is because any individual child can suffer significant disruptions to their home, their social and their school lives, which in the worst cases can span right across what are acknowledged to be fundamentally important stages of their educational

¹² A self-descriptive term agreed amongst the diarists, to be used in preference to ‘victims’

¹³ Diarists referred to experiencing perceptions of unfairness when they only realised, after the fact, that pay-out settlements made by insurers could actually be negotiated upward; it was not necessarily a case of accepting the first offer made. This was something they felt should have been made clear from the outset.

and social development (e.g. when 'moving-up' from primary to secondary school, or leading up to and during exam years).

The project identified that teaching staff felt that flood-affected pupils were being let down. For example, the fact that children needed to be transported greater distances to and from (undamaged) schools for their lessons, meant that they lost teacher contact time. As staff would have normally used this time to engineer opportunities through which they could help struggling pupils achieve better exam results, it becomes easy to see why losing it would leave the staff so disheartened. Such expressed concerns suggest that poorly managed recovery really can have life-shaping effects on children's future potential (e.g. it can mean the difference between passing and failing exams).

The current NRG case studies from Buncefield, Yorkshire and Humber and, to a lesser extent, Lewes, provide some useful information on provisions that were made for children and young people after these specific events (e.g. an art competition to "collect reminiscences" of Buncefield), but the guidance itself could be described as being 'benignly neglectful' (Revere, 2011) of this group's vulnerabilities. For example, a search of the NRG pages for information explicitly on children and young people reveals a link to [roles and responsibilities](#) regarding educational provision (i.e. provision of suitable buildings etc.) and to literature on identifying those suffering [PTSD](#) after disasters (even if that guidance is for healthcare professionals in healthcare establishments, rather than for teachers in schools). Considering that the argument here is that it is not necessarily the 'event' which may cause this group problems but the consequences (i.e. it may not be PTSD), it seems unfortunate that it is necessary to delve into the Department of Health advice on [Planning for the psychosocial and mental health care of people affected by major incidents and disasters](#) (linked from Needs of people – health), in order to find very useful information, which points out that children and young people may suffer both direct and indirect (i.e. event and consequence) disaster effects. This advice states:

“ ...education providers as well as disaster planners require advice on matters pertaining to children's psychosocial needs and care from professionals who are trained and experienced in working with children. Schools should be encouraged to play their full roles in assisting children and families after disasters and major incidents. The support of teachers and other staff who are familiar to them are usually very effective and experienced by children as an extension of ordinary life. Often, therefore, the risks from disruption that accrue from introducing counsellors into recovery scenarios, albeit that they are trained, outweigh the advantages. It is better that trained people work indirectly through advising and supervising adults with whom children are familiar. (Department of Health, 2009: p.30)

Notwithstanding the fact that this explicit guidance exists, our research found that Head Teachers in some schools (which were not flooded, but where flood-affected children were registered) had been found to resist support from specialists (e.g. educational psychologists), even when it was offered, by stating that ‘the school could cope’ by itself. Given that the Children’s Project identified several occasions where teachers were surprised to learn – as a direct result of the research activities – that individuals in their care were suffering recovery-related anxieties (Walker *et al.*, 2010), is it time for the lack of positive advocacy in the NRG for specialist support in child welfare issues to be revisited?

4.3 The consequences for Frontline Recovery Workers

Guidance on the care for and the consideration of frontline worker issues forms a 3-page subsection within Emergency Response and Recovery (HM Government, 2009). Therefore, suggesting that the CP-sector lacks an understanding of these issues may seem unreasonable. However, what the Hull research has found is that, whilst the published guidance concentrates on the welfare of “rescuers and response workers”, there may be employees and employers carrying out frontline *recovery* work, who don’t even realise that this existing guidance could relate to them too. Importantly, in concentrating solely on ‘rescue and response workers’, this guidance appears neglectful of available evidence, which suggests that the consideration of the physical, emotional and psychological welfare needs of staff, as well as health and safety related considerations, should not end at the first incident debrief, but should extend long into the recovery period (Convery *et al.*, 2007; Department of Health, 2009; Whittle *et al.*, 2010).

Think of frontline workers in relation to flooding and the images that come to mind tend to be of the people involved in the immediate emergency response efforts – for example, the Fire and Rescue Service, Police, Environment Agency staff and other emergency services workers. However, deciding who counts as a frontline worker during the longer-term recovery process is more difficult as the diversity of workers and their roles is so great. Following Convery *et al.*’s contention that “the frontline often emerges in unexpected places” (2008: p.114) the Hull Projects identified four types of worker who could be classified as frontline:

- Permanent and temporary staff whose jobs were created specifically to deal with the issue of flood recovery. For example, Charlotte¹⁴ was employed by Hull City Council’s Flood Advice Service through which she provided assistance to flooded residents – both over the telephone

¹⁴ A diarist from the adults’ project

and in person – on a range of issues, from dealing with insurance claims to resolving issues with building contractors and helping poorer residents access additional forms of financial aid.

- Those whose pre-existing job roles were transformed to deal with flooding issues. The best example of this in Hull was the work of the community wardens. Hull’s community wardens work in neighbourhood teams across the city to help residents with issues of concern to them, such as anti-social behaviour, vandalism and environmental problems. However, after the floods, the wardens were enlisted to perform a range of activities, from evacuating schools and care homes on the day of the floods, through to helping residents fill out assistance forms and performing caravan safety checks during the longer-term recovery process. Another important example of this type of role extension would be school staff (i.e. teachers, but also assistants and caretakers) who bore considerable, deeply-institutionalised, responsibility for the welfare and support of their pupils and who worked through their summer holidays on the repairs to the school and arrangements relating to the temporary relocation of their pupils
- “Traditional” intermediary roles. The flood recovery process consisted of a heightened role for well-known intermediaries who exist to bridge the gap between individual residents and the various companies and agencies that they need to deal with after a flood. The clearest example of this is the work of the loss adjusters and the Citizen’s Advice Bureau.
- Informal work that was carried out in a voluntary capacity by community groups across the city. For example, Hazel¹⁵ belonged to a church in the heart of a badly flooded area of the city. She described how, despite having only 17 members, the church was able to respond flexibly and quickly to the needs of the local community in ways that were impossible for larger, more bureaucratic organizations that were restricted by funding constraints or organizational protocols regarding recovery

It was found that many of those involved in these types of expanding, extending or emergent (Bardo, 1978) work roles found the experience to be very positive, with perceived rewards including CVs enhanced with new skills and the feeling that they were really helping people. For those that held the dual roles of recovery worker and also of flood survivor in their own right, the experience of working for others allowed them to put their own hardships into perspective, and also to empathise with those they were dealing with. It should be clearly understood, however, that those who were forced by circumstances to carry out this dual role, found the overall experience to be extremely arduous.

The research also found that when individuals were able to work flexibly on their own initiative, there were also considerable pay-backs for their communities and also for their employing organisation. For example, staff from the Hull City Council’s Community Team were able to use

¹⁵ An interviewee from the adults’ project

their local knowledge and social networks to identify problems and deliberate solutions more quickly than might otherwise have been the case. This led to staff feeling very positive about their roles.

Whilst there were these positive examples, however, disaster work is never going to be easy. Therefore, workers also reported a number of specific issues that made their work more difficult. Some of these workers felt they had a lack of support from their employers. This was particularly so for those bearing the dual role, who felt their employers did not recognize that they were also “flood victims” with needs. Within their organisations there was a reported lack of formal opportunities to debrief with colleagues, a lack of basic equipment and resources (e.g. protective clothing, food and drink), and a failure by organisations to learn from the experiences of these workers. One example of this related to a worker who became stressed when having to carry out activities that she felt were ineffective and unfair; as she wrote in her diary:

“I was closing cases at work this week (signing off those properties which had been supposedly finished). I felt that this was premature as I knew from first-hand experience that this was not always the case. I was uneasy about this as I felt this was more to do with massaging figures than actual progress!” Diarist Charlotte (Whittle *et al.*, 2010: p.88)

Using examples such as these to critique strategic-level decisions may seem unfair. However, this was not the only example of this type of decision being made, where seemingly arbitrary dates were used to create cut-offs by which time recovery-designated work had to be completed (e.g. dates by which emergency-related funds must be spent). It is important to point out that the impression left by such actions on the public, and on the frontline workers who are dealing with the public, is not positive. These emergency-budgets to mainstream-budgets spreadsheet exchange exercises may be important in terms of financial management, or in terms of reputation management (e.g. in the sense that people can say “We ‘recovered’ before the first anniversary of the emergency!”). But, what they risk doing is not only putting into jeopardy the recovery trajectory of some households that are already experiencing more protracted disruptions than others, but they also cause embarrassment and distress for those working at the interface between these households and those organisations. That these arbitrary deadlines are implemented as a result of strategic-level decision making, regardless of the frontline worker concerns, suggests that recovery is not being determined by the community itself (as is the apparent aspiration), but by an unresponsive and inflexible bureaucracy. Such actions also go against Eyre’s observation that:

Crucially, although some flexibility is necessary, workers need some indication of how long [any post-disaster recovery] service will be maintained and that the work is supported and

valued by their department. Otherwise failure to provide a secure environment for the work is likely to undermine the extent to which staff feel they can work effectively. (Eyre, 2006: p.78)

4.4 Community emergency planning, for recovery

Making slightly different use of the Hull research, this section will briefly discuss the final of the four introduced themes by using data gathered during a final group discussion conducted in early 2011 between two couples (i.e. four individuals) involved in the original Hull research. The purpose of the group was to develop a case study for one specific activity, which has been proposed as a way to mitigate both event and consequence vulnerability in the future; Community Emergency Planning (CEP). However, while this discussion did yield useful material for such a case study, it also generated insights into the concept of CEP itself which allowed us to identify gaps and suggest the improvements highlighted here.

It is clear that the UK Government is keen to increase individual and community resilience against emergencies. However, the current government focus on community-resilience building falls almost entirely on promoting activities based on preparedness and response. For example, the recently published [Community Resilience Framework](#) states that “*emergencies happen [and] preparing yourself and your family will make it easier to recover from the impacts of an emergency*”.

This is a limited perspective, because as the preceding discussion illustrates, the speed at which recovery, restoration and rehabilitation ‘to an acceptable level of functioning’ is achieved is actually dependent upon more factors than those encompassed in any individual’s or community’s ability to plan and respond to hazard. The Cabinet Office’s concentration on preparedness and response is understandable (i.e. it is driven by the need to comply with the CCA). However, the follow-up research in Hull, which was commissioned for this report, has revealed that at least some individuals, who have been physically affected by flood hazards, and who have experienced considerable challenges in attaining some form of rehabilitation, would still not consider response-focused community emergency planning to be a priority in terms of reducing their future risks.

Clearly it would be wrong to draw any sweeping conclusions from this follow-up research, which involved a very small number of people who had experienced a particularly idiosyncratic surface-water flood event in a large urban area. They, along with the rest of the city’s population, had little or no prior experience of such a hazard and little or no direct warning (Coulthard et al., 2007). Therefore, consideration needs to be given as to whether the

information gained from these research participants is directly transferable or representative of what is thought by other populations exposed to different types of hazard. Nonetheless, the discussion, combined with subsequent conversations that the authors have had with academics, frontline workers and practitioners working in the CP field, as well as with the diarists themselves, raised some interesting questions that warrant further investigation.

When asked about CEP during this discussion the Hull diarists did agree that, since the flooding in 2007, they had developed basic contingencies, which they could implement if ever they feared they would be flooded again (e.g. they would use planks to create raised shelving upon which to place vulnerable possessions and they now store insurance documents upstairs). However, thinking beyond the household scale, these 'plans' were not examples of planning in the sense of written checklists or telephone trees, but at most, examples of informal arrangements that might reduce losses in the immediate run-up to an event (e.g. keys being shared with neighbours so they could get in to raise valuables if the owner was absent). These 'plans' could not really, therefore, be regarded as examples of *community* planning. More accurately they represent evidence of learning from harsh hazard-taught lessons. Their experiences had instilled in these individuals that in a large-scale emergency you are, ultimately, on your own and that it is you that needs to keep making decisions, rather than wasting energy hoping, either, that the 'thing' that is occurring will stop (i.e. what could be described as King Canute syndrome), or that someone else [even a fellow member of a closely-bonded social network] will act in your interests as effectively as you do yourself (Box 2).

Box 2: Excerpt from Beccy Whittle's summary of final focus-group discussion with Hull diarists (21st February 2011)

In this excerpt, the group is discussing Ian and Isobel's experience – the couple were coming back from holiday on the day of the floods and, consequently, felt that there was little they could have done to save their home.

Interviewer: If there had been a community plan in place and you had been coming back from holiday, would you have had a bit more confidence then?

Ian: I wouldn't have been so worried about community planning but I think I'd have been able to do a lot more if I'd been here.

Continued

Box 2: Continued

Here Carl and Leanne – who were in Hull on the day of the flood – disagree and think there would have been little that Ian could have done

Ian: I could have taken a lot more stuff upstairs. I mean John was running back and forth like somebody demented trying to cover 2 houses [John is their son-in-law who lives at the other end of the same street and was trying to look after his home too].

Isobel: I mean John was worrying about how our Paula [his wife] was going to get home from work. He'd had to pick the kids up from school so he had two boys to look after.

Ian: You're more aware of what needs protecting in terms of personal stuff

Leanne: Well, we couldn't do any more even though we were there

General agreement

Carl: I don't think it would have made any difference because he [meaning John, Ian and Isobel's son-in-law] didn't come from a dry area – he had his own house to save as well, didn't he? So he was divided. Here, next door was trying to help Leanne with the garage but then theirs started to flood and they had to go and do theirs so Leanne lost her help. And then when I got home it had started to affect the house so we were trying to save that.

Leanne: Even with a contingency plan, even with things in place, you can only do so much. Because you're all individual and you're all trying to save your own stuff – all your personal stuff

General agreement

The fact that the diarists' afforded actions to save personal possessions priority status in their 'plans' is hardly surprising and could mean that the consequences of future flooding on these households may be reduced. However, this is not necessarily due to the fact that such actions are particularly effective; it relates more to research findings, which suggest that if people are given the opportunity to save possessions of sentimental value, then this can act to reduce mental trauma in the post-event period (Fielding *et al.*, 2007). It must be remembered that after the flood in 2007 the predominant *recovery process* (i.e. that which was largely dictated by the bureaucracies of the insurance/building industries, rather than the Civil Protection sector) tended to focus on restoring properties on a like-for-like basis; an approach which apparently included the repair of social housing that was owned and operated by the Category 1 responder, Hull City Council (Coulthard *et al.*, 2007). This meant that very few physical-resilience measures were ever installed (e.g. sockets were not raised above flood level) and

properties, although decorated in a more ubiquitous “brown and cream” colour than before, were restored to a physical condition that was, essentially, just as vulnerable to floodwater damage as before.

This is a fundamental point in terms of recovery and resilience building, because it has been found that due to the modern preference for fitted carpets, flooring and furniture and the fact that these items cannot be readily moved out of harm’s way – even if a warning is broadcast, received and understood and even if *effective* action is taken (Mileti & Sorensen, 1990) – the amount of financial loss that is avoided by raising what can be raised, is actually surprisingly small (Parker *et al.*, 2007) (Box 3). Therefore, it is likely that, regardless of what plans are made in terms of preparing oneself for inundation, the amount of disruption and stress that is incurred, during the rebuilding and restoration of all these immovable items, is likely to be almost as severe as if no plans were made at all.

Box 3: Resilient and resistant reinstatement

Thinking specifically about the repair of properties that have already been flood affected, for householders residing in areas exposed to an annual flood-hazard probability of no worse than 2% (1 in 50 year), it is highly unlikely that any insurance company will consider financing post-event reinstatement that includes anything but the most basic flood resilient or resistant measures: it would be neither cost effective nor practically effective for them to do so (ABI, 2009b; Defra, 2008). This would apply even if such measures were to be ‘permanent’, in the sense that the householder would not need to be present or be required to take any direct action on receipt of a specific warning in order to make the saving[†]. The insurance industry does suggest that domestic property owners should always consider reducing losses, by investing in their own resilient and/or resistant counter-measures themselves (ABI, 2009a). However, there is evidence to suggest that even though flood-affected householders have followed this advice, there has been no acknowledgement of this voluntary risk reduction by the industry in terms of reduced insurance policy excesses or premiums (Bell, 2011; Harries, 2010).

[†] i.e. as would be the case with fitting demountable flood ‘resistant’ measures like floodboards, which to achieve their designed effect, need (1) someone to be present to fit them (2) to be fitted correctly and (3) to be fitted in such a way that water cannot simply bypass them (e.g. through an adjoining, unprotected, property, or simply by percolating through the ground)

Such findings, along with the fact that, for complex reasons, people living on floodplains tend not to regard themselves as being responsible for flood defence (Deeming *et al.*, in press; Harries & Borrows, 2007; Steinführer & Kuhlicke, 2009), only serves to emphasise the fact that the recovery process, as it has been physically experienced by the Hull residents and others, equates to little more than a straightforward reproduction of vulnerability.

So, did the diarists offer anything positive in terms of how planning might improve resilience? Perhaps; but instead of thinking about the constraints they placed on planning for *responding* to future hazards, we need to return to our definition of resilience and consider what these diarists' experiences have taught them about improving their future *ability to recover*.

It was the Hull research that originally led to the definition of the recovery gap (see Section 4.1). Therefore, it is hardly surprising that in their final discussion the diarists spoke less about the lessons they had learned for preparedness and response and more about the lessons that they had learned about *recovery*, as a result of the problems they had faced in trying to negotiate their way through this public/private-sector divide. For example, when asked what they would do after another flood, they suggested that they would think very carefully before they opted to live upstairs or in a caravan on the driveway again, purely on the grounds of their own health protection and stress reduction.

The issue of negotiation came up too. The diarists had learned that, instead of allowing an insurance company to prescribe the pace of the process (e.g. by allowing it to use its own loss adjustors and builders), it could be better to demand a settlement from the company in order that the householder could commission their own trusted builders direct. The main Hull Flood Project revealed that many diarists had not known that this was even an option before¹⁶, but learning from the experience of others during the course of their recovery journeys as well as through the group sessions involved in taking part in our research had given them more confidence to argue (or “fight”) their corner more effectively in the future:

“At the beginning you think you have to do everything by the book and ‘jump’ when the insurance people say ‘jump’ - which isn’t true at all but you only learn these things as you go along and talk to other people.” Hull Diarist during final focus group

Such alternatives may not, however, be open to all. Project management like this takes time and requires a certain amount of psychological strength and ‘savvy’. Unfortunately, already-

¹⁶ This is another example of the problems brought on by the highly individualised way in which recovery is managed through the private sector – see original discussion in Section 4.1

vulnerable individuals and households may lack these resources. From this perspective, Hull City Council's 'Gold, Silver and Bronze' priority system¹⁷ was regarded positively, as a commendable approach to identifying vulnerable households and prioritising their works. As Paul Hendy of the National Flood Forum (NFF) was quoted as saying, this system meant that people in severe financial hardship could have the stress taken "out of their lives and weight off their minds" (HCC, 2007). However, according to the Hull research, once the initial council visits had been conducted and the first tranche of support distributed, those afforded the most basic support package (i.e. bronze) were left feeling very much on their own and as though they had nobody to go to for advice or advocacy¹⁸. Sadly, these feelings of isolation did not just affect those people who had been insured but who were 'fighting' to obtain what they considered to be a fair treatment and settlement. Even those in social housing could feel themselves slaves of the repair schedules, which were decided between the council and its contractors and over which they felt they had no control. For all these people, the long-term recovery journey involved expending considerable time and energy on the mental and emotional 'work' of trying to chase the council and worrying when things were not completed as originally promised (Whittle *et al.*, 2010).

But services cannot go on indefinitely and local authorities cannot really be expected to 'hand-hold' ever-reducing minorities of their constituents through their recovery from discrete hazard events; especially if that process is going to persist through months and years. Councils and their operating partners are faced with continual pressure on their budgets and the need to prioritise resources. Therefore, given the critique outlined in this section, is there ever some point at which 'recovery coordination' can revert into being just another day at the office?

This is an important question, which will be broached again later in the next section.

¹⁷ Not to be confused with the IEM based Gold/Silver/Bronze incident-management hierarchy these categories were: Gold - These were the most vulnerable citizens, i.e. over 60yrs old, people with disabilities or single parents with children under 5yrs old: Silver - Anyone not falling into the Gold category, but without Home insurance: Bronze - Anyone affected who was not Gold or Silver.

¹⁸ Section 4.3 discusses how workers providing flood-specific services became concerned when they were terminated, because they knew people were still relying on them (Whittle *et al.*, 2010).

5. Discussion and recommendations: thinking about recovery, from the bottom up

“There is absolutely no difference between those in uniforms and hard hats and those without. This is happening to us all”

Bob Parker, Mayor of Christchurch NZ.,
speaking after the earthquake of 22nd February 2011 (Perkins, 2011)

This discussion has now corroborated and elaborated the contention made in National Recovery Guidance (NRG) that recovery is “a complex social and developmental process rather than just a remedial process”. It has also identified four themes, which are not fully engaged by NRG, but which have been shown here to bear the potential to influence the course of the recovery, through the introduction of various consequence vulnerabilities. This section will now discuss these themes in concert and suggest ways in which contingencies for them might be integrated more comprehensively into NRG.

The first thing to say at this point is that, of all the pages of NRG, the comments made here should not be understood to represent an asymmetric attack on something that is irrevocably bad or wrong, but as attempts to make an already good resource better. On the whole, the NRG appears to lay out consistent, useful advice and where more detail is needed then readers are directed to appropriate external resources. If recovery plans are to be regarded as living documents, which can be brought down from a shelf, read and followed by people who (1) might never have seen the document before and/or (2) may be ‘live’ in the midst of their first emergency¹⁹, then the majority of this guidance clearly serves a purpose. In terms of guiding the actions and decisions of any newly formed RCG, making them aware of the complexity and potential length of the recovery process they are about to oversee, and highlighting the need to consider the provision of resources such as advice and counselling services (in addition to finding ways and means to get roads repaired) is genuinely valuable. Without doubt, NRG and its associated resources (e.g. the recovery plan template) should be regarded as being a considerable improvement over previous, more *ad hoc* approaches.

However, using the Hull research findings as a lens through which to review NRG has revealed some interesting and potentially important gaps. That these gaps exist suggests that a number

¹⁹ This is the description, given to the author, of how Cornwall’s newly published [Strategic Recovery Plan](#) was brought to the attention of the members of the RCG as they gathered together for the first time during the flood event in the county in November 2010

of factors that have been found to influence recovery at the community and the household level can remain invisible to people who really should know about them.

Specifically, looking at what has been published, current NRG could be said to be ambivalent toward several recovery issues and, particularly, in its treatment of the recovery gap (see Section 4.1). This ambivalence also appears in the issues surrounding children and young people (see Section 4.2), where guidance is made available through links, but where, perhaps, there is insufficient elaboration of the fact that the long-term consequences of emergencies and disasters can be potentially life-shaping for this group and that these consequences are, therefore, worthy of proactive mitigation.

The welfare and importance of frontline recovery workers too, receives the most cursory attention (see paragraph 2 in Recovery Guidance – generic issues), even though research suggests that these people can suffer real stress as a result of their needing to work in new and challenging ways. From a community self-help perspective, the opportunity to highlight the value of these workers' potential to form important conduits for *two-way* information flow, between the affected community and the strategy-building RCG, is also missed.

Thinking about the recovery gap, NRG states that affected communities may need “*handholding through or sophisticated signposting to systems of support and advice*” and it also points out that there should be “*psychological / counselling provisions for mental health issues including trauma*” (see ‘Needs of People – non-health’). Such contingencies (e.g. the provision of one-stop-shop type advice centres) have, indeed, been found to be popular with affected communities and have become part of the arsenal of measures that are now regularly deployed by the recovery organisations. However, there is no explicit guidance on what such ‘handholding’ should be seeking to achieve or how it should be conducted, other than the implication that such aims should be agreed in advance by the Recovery Co-ordinating Group (RCG). On the ground, this lack of guidance could mean that (e.g.) advice centres could be shut down completely as soon as a minimum-demand threshold is crossed. As stated above, such approaches may be understandable in terms of their benefit-cost or reputation-building value. However, it has been argued here that completely terminating such services, without leaving *clearly-signposted* contingencies for the remaining minority of the population, who may be experiencing real difficulty in returning to ‘normality’, risks assigning potentially disproportionate amounts of anguish to this group.

Finally, the Hull research suggests that community emergency planning is not regarded as a practical household approach to vulnerability reduction (Section 4.4). People who do plan 'know what to do next time' a flood happens and, therefore, they may save more of their valued or valuable possessions than otherwise. However, as outlined in Section 4.4, unless a property has been equipped with resistance or resilience measures, it is likely that the amount of damage that can be avoided will be minimal. Consequently, expensive and disruptive rebuilding is likely to be necessary and it is therefore hardly surprising that what causes flood-affected people the greatest concern is the thought of having to go through the recovery *process* again. Let's ask two rhetorical questions here to put ourselves in the place of those residents: (1) how does a household or community develop a plan for how it is going to negotiate the recovery of a damaged property with a combination of [delete as appropriate] loss adjuster/builder/utility company/furniture retailer/landlord/etc.?, and (2) If people with direct hazard experience are not able to plan for their journey through the recovery process in this way, what can be expected of those who are hazard exposed, but as yet have no hazard experience?

We are not, of course, suggesting that community emergency plans are of no use. As explored in Section 4.4, we showed how such plans can help people keep themselves and many of their belongings safe in an emergency. Instead, we have raised these rhetorical questions in order to highlight the limitations of such approaches. To return to the comments of Leanne, the Hull diarist: "Even with a contingency plan... you can only do so much".

This problem is closely linked to another question that was asked at the end of the last section: given the critique outlined in this report, is there ever some point at which 'recovery coordination' can revert to being just another day at the office?

If we think about this question in terms of it relating to the formal Category 1 and 2 responders, then it could be suggested that yes, there must be a point at which things move-on from being emergency related. In effect, budgets and manpower provisions can only be sustained if emergency-related needs remain above a certain threshold. Below this threshold the costs accrued in maintaining these special services for a shrinking minority, become too large relative to the benefit such provision has for the whole population. This is understandable in a world of conflicting and competing priorities. However, if one of the consequences of terminating assistance to this minority is that they suffer still-further protracted problems in returning to normality, what of that? That's a problem.

In response to such dilemmas, then, the key question is how can we improve NRG and associated guidance to deal more effectively with these issues? The following sections of the report move on to address this question by suggesting some possible solutions.

6. Recovery as problem solving

While an enduring and well-recognized institution or powerful organization should not be torn down or radically revised unthinkingly (it is there and has survived for a reason), nor should it be accepted uncritically, without reference to performance in acquitting the role that society expects of it. (Handmer & Dovers, 2007: p.154)

The recommendations made in the following sections are united by a subtle but important change of emphasis. This should be considered as an attempt to challenge existing notions of what emergency planning should involve. Dynes (1994), suggests that emergency planning should move away from its ‘command and control’ approach (i.e. the centralised, top-down, approach, which treats emergencies as largely analogous to an enemy attack). Such an approach, Dynes posits, disenfranchises the affected public, because it assumes that in an emergency the society will become dysfunctional and, therefore, it will inevitably fall to professional responders to ‘restore order’. Dynes supports his argument by pointing to the wealth of evidence, gleaned over decades of social research, which reveals that this assumption of public dysfunctionality in disaster is a myth (see also: Barton, 1969; Clarke, 2002; Solnit, 2009). Dynes suggests that, in light of this and to be truly inclusive of community interests, emergency planning needs to be practiced, not as an opportunity to command and control, but as an opportunity to *problem solve*. The problem-solving model, he believes:

... assumes that the resources from the pre-emergency community are relevant and sufficient. And that the conditions of the emergency period will not be characterized by social chaos but by continuity of effort and structure. ... Thus the primary focus of emergency planning efforts should be on the development of mechanisms and techniques of coordination which allow an effective response on the part of the organisational resources **in the community**. (*ibid.*, p.156: emphasis added)

Whilst current UK Civil Protection guidance clearly advocates the imposition of ‘Command, Control and Coordination’ during emergencies (see ERR: p.62), on looking at recovery guidance there is clear evidence of a move toward a more participatory approach. For example, the latest guidance on the role of the Local Resilience Forum promotes recovery principles, which include; the adoption of a “community development” perspective, and the need for approaches that are “sufficiently flexible to respond to a diversity of community needs” (Cabinet Office, 2011: p.60). This is interesting, because ‘Community Development’ is a field that is replete with its own rich

and oft-contested set of theories and approaches (Ledwith, 2005). Therefore, as no accompanying narrative is provided, exactly how those in the CP-sector are expected to know what their tasks are supposed to look like from this ‘community development perspective’ is unclear. However, applying informed deduction here, we could divine that it is intended to be communities’ capacities to learn and build resilience through networking that is what we should be seeking to develop (Gilchrist, 2003). In such case, what these principles appear to illustrate, is the acknowledgement that recovery is a state that can only be achieved by *doing things with* the affected communities, rather than by *doing things to them*²⁰. From this social networking perspective then, if individuals, households and communities exposed to hazards, but not yet affected by them, cannot organise themselves, *in advance*, in a way that significantly increases their own capacity to recover after an event, who does need to know, *in advance*, about how to deal with this?

We answer this question in the following section which begins our list of recommendations:

7. Recommendations

The recommendations listed here consist of new approaches, text changes and tools that could be utilised in order to help ameliorate the particular challenges and oversights that have been identified as afflicting NRG:

7.1 New approaches

7.1.1 Reducing the recovery gap

As stated throughout this report, the problem of the recovery gap is a difficult one for the Government and CP practitioners to solve directly, as it results from the fact that in the UK the longer-term recovery process is largely dictated and managed by the actions of private companies, who are outside the direct control of CP legislation and the RCG and who deal with people on a highly individualised basis. However, there are two concerns that can be raised in response to this. The first is the importance of the Government continuing to work to ensure that the private sector companies involved operate in ways that encourage resilience, promote fairness and minimise disruption to residents during recovery. Such work is outside the scope of this report but remains vital to the task of boosting effective recovery and resilience – for

²⁰ It is Dynes contention that this ‘doing things with’ perspective relates not just to recovery but to the whole IEM cycle.

example, the Government should continue to work with the Association of British Insurers and others in the insurance sector to encourage resilient reinstatement during flood repairs.

The second point is the one we wish to focus on here. It recognises that, in addition to the crucial task of encouraging the private sector to improve its working practices, the Government has a role to play in helping residents deal with the problems of the private sector during recovery. One of the principal learning points that came out of the Hull research was that when people talk to each other they can find out ways of helping themselves more effectively. This is because, when doing so they are effectively 'comparing notes' and sharing knowledge, skills and emotional support. They are thus going some way towards countering the individualised way in which recovery is managed by the private sector. Our research therefore suggests that, if they have access to good advice, information and arbitration, people can have a better chance of solving their own problems and negotiating their own way along their recovery journey. However, such communication does not necessarily arise spontaneously or in a format that is helpful to people and it must, therefore, be properly facilitated and linked-in to the appropriate support and advocacy services. Thinking about how such communication might be facilitated better, it is useful to formally identify here, one group of people whose specialist skills in networking, communication and problem solving within and across communities go unmentioned in current recovery guidance.

During the Hull research and later, it was learned that the frontline recovery workers who had been amongst the most highly regarded during the recovery period were Hull City Council's Community Wardens and Community Development Workers and Cumbria County Council's Communities Unit²¹. These teams are made up of individuals who are based within geographical communities, about which they hold invaluable local knowledge and where they have the training and skills to identify and solve problems quickly using flexible approaches (Pitchford, 2008). In Hull and Cumbria this meant that it was these teams that were at the forefront of recovery activity, for example, finding local buildings in which to set up neighbourhood community centres and organising day trips for affected families. The fact that they provided such a valuable link with the affected communities was not missed by Hull City Council, as one of their wardens (who was also a diarist) suggested in an interview for the original project that the wardens had really benefitted and gained prestige due to the manner in which their contribution to community engagement had been appreciated:

²¹ i.e. These are positions that bear similarity to the various Community Teams; Community Development Workers; Localism Teams, etc. of other local authorities

Interviewer: Do you get a sense that anything positive has come out of the floods or not?

James: I think recognition for the wardens from people like the Council because I think they've not only recognised the flexibility, how quickly they can respond, but I think they've also recognised that they have skills and one of those skills is to talk to the public because a lot of people you know, can sit in an office and talk to the public across the table but to go out and talk to them in their homes and be understanding. And we've seen some wardens, especially some of the younger ones, who didn't want to go out and do it, who were getting very upset when they were at somebody's house and they were all weeping and they do this eight times a day. And they found that very demoralising and emotional, but they've done a super job. So I think yes, there have been positive things coming out of it.

James (resident and worker) Interview, November 14th 2007

Using Wenger's (2000) terminology, community workers who perform a networking role, at the important interface between communities and between communities and the authorities, could be described as professionals who are employed to act as *brokers* who conduct the *boundary practice* of networking communities together. In terms of their face-to-face neighbourhood work, these individuals are trained in "relationship building, promoting participation and expanding the 'roles' and 'capabilities' of individuals and the community as a whole" (Pitchford, 2008: p.44). According to one of the most influential publications on the role of community work, 'The Gulbenkian Report', there are also two further roles that these *boundary people* undertake: *service coordination* (i.e. the evaluation of services, and of communication between service providers and service users and the securing of new resources) and *community planning*, which is based on the recognition that large organisations [e.g. insurance companies?] and authorities can significantly impact on the fortunes of communities and thus need to be influenced by a community development perspective (Calouste Gulbenkian Foundation, 1968: cited in Pitchford, 2008).

This appears to be a fundamentally important skill set, which is inherited within local authority departments throughout the UK. Yet the potential usefulness that the individuals who hold this skill set may have, in facilitating community-based self-help approaches to recovery, is effectively missing from NRG. Is there a lesson to be learnt here from Wenger, who says:

Because brokers often do not fully belong [to any particular community] and may not contribute directly to any specific outcome, the value they bring can be overlooked. ...marginalisation and organisational invisibility are all occupational hazards of brokering. Developing the boundary infrastructure of a social learning system means paying attention to the people who act as brokers. Are they falling through the cracks? Is the value of what they bring understood? Is there even a language to talk about it? (Wenger, 2000: p.236)

To summarise, the need to take a "community development perspective" is promoted within the guidance, but the readers of NRG are left entirely to their own devices as to *how* such an

approach can be developed and as to whether it *can* be developed at all using the current LRF-centred approach. Having determined this, it is hoped that the suggestion for further research which emanates from this discussion, (Section 8) may reveal opportunities through which this *problem may be solved*.

7.1.2 Frontline Recovery Work (FLRW) issues

Community Engagement

There is a need to acknowledge that the responsibility for dealing with some consequence vulnerabilities falls most heavily on partners whose employees are not traditionally defined as 'Responder'-trained staff (e.g. Local Authority community and sustainability staff may find themselves in situations where their existing roles are being extended: Bardo, 1978). Therefore:

1. It is recommended that Emergency Planning staff should be encouraged to expand their links across a wider range of Local Authority departments and voluntary-sector organisations. This should be done in order that effective contingencies for the mitigation of *consequence* vulnerabilities can be co-developed in slow time
2. Local Authorities should recognise that they have well-trained staff who can provide an important conduit for information from the affected community (e.g. advice centre staff / community development workers / 'recovery coordinators' and in the future '[Community Organisers](#)'). These staff work closely with individuals and affected communities. Therefore, they are likely to understand what problems these people are facing and how many people are facing them, with greater clarity than those in more removed positions. Accordingly, whilst the RCG is designed as a strategic-level structure, a principal priority of the RCG should be to develop strategy and timeframes that are fully informed by this frontline experience (i.e. there must be a way for information about community needs to travel from the bottom up, not just from the top down)
 - For example, it should be advocated that a 'Community Team' representative sits on the RCG community engagement sub-group

FLRW welfare

Frontline recovery work can be rewarding but also very stressful, particularly for those staff who have themselves been affected by the emergency-inducing hazard. Therefore, it is

recommended that these staff should be acknowledged as having worked ‘beyond the call of [normal] duty’ (e.g. through awards or letters of appreciation).

It is also recommended that the value and challenges of frontline recovery work should be formally acknowledged, with an amendment to Chapter 7 of ‘Emergency Response and Recovery’

7.1.3 Improving services for children and young people experiencing long-term recovery effects

It has been acknowledged that disasters have direct and indirect effects on children and young people (see Section 4.2). Therefore, it is recommended that any schools that have been affected by a disaster, or that take in students from disaster-affected schools, should be strongly encouraged to seek outside expert guidance on how to best identify and assist any child or young person who might be disadvantaged by event or consequence effects²².

7.2 Text changes to National Recovery Guidance

Finally, given that the Hull Projects identified the need to differentiate people’s experience of the flood event from their experience of the recovery process, in terms of how effectively they are able to restore their homes and to rehabilitate themselves, it was felt important to conduct a review of the actual text of the current [NRG](#)²³. Particular emphasis was focused on identifying places within the existing guidance where it was felt that the complexity of long-term recovery could be better communicated to those given the responsibility to plan for it.

The following sub-section, therefore, lays out a short series of suggested revisions, which concentrate on two sub-sections of guidance within the overarching Humanitarian Aspects topic area; namely: *Needs of people – non-health*, and *Community Engagement*.

Whilst the concentration will be on improving these two sections, it should be noted that there were other places where the ‘language’ of NRG and its related guidance, already reflects a great deal of the complexity of the recovery process (e.g. the principles of recovery in: Cabinet Office, 2011). Given this fact, it was difficult to identify how minor changes in nuance could make the guidance significantly better.

²² It was felt by the authors that this issue would need to be deliberated across government departments (e.g. CO, DfE), therefore, no suggestions were offered in Section 7.2 as to what text formulation might be adopted

²³ Following its move from the UK Resilience website to the Cabinet Office

Suggested amendments are appended beneath the extract of original text.

Needs of people – non-health:

Sub-section Needs of People: paragraph 1

Original text

Of key importance in the planning stage is that all agencies and individuals involved recognise the high trauma and stress that those affected may have experienced; and the need for a wide range of organisations to have appropriate plans in place to provide an appropriate response. It is imperative that organisations ensure staff are adequately trained, informed, supervised and supported throughout, as they will be affected by their involvement and if emergency responders are unsupported, they risk experiencing secondary trauma themselves.

Suggested amendment

Of key importance in the planning stage is that all agencies and individuals involved recognise the high trauma and stress that those affected may have experienced. However, in terms of long-term recovery, it has been found that those who have been hazard-affected can also suffer unnecessary additional stress and trauma as a result of the recovery process itself. Threats include: poor practice (e.g. by 'cowboy builders'), and the lack of communication between those affected and the organisations responsible for assisting their recovery (e.g. insurance agents and/or loss adjusters). There is, therefore, a need for a wide range of organisations to have appropriate plans in place, through which to identify these problems and to generate appropriate solutions (e.g. signposting to relevant arbitration services). Given these additional challenges, it is imperative that organisations ensure their staff are adequately trained, informed and supervised in their role and that their working practices are flexible enough that they can identify and report and/or resolve the community's recovery-related needs.

Furthermore, due to the pressures that can be placed on staff working under these conditions, it is also vital that they too are supported, because they will be affected by their involvement and if they are unsupported, they risk experiencing secondary trauma themselves.

Sub-section Needs of People: paragraph 2

Original text

A wide and diverse range of agencies in the UK offer assistance, advice and support to people on a routine basis and have the capability to play a key role in the recovery phase. Planning should cover anything which people are likely to need in the immediate days, weeks and months after the emergency. This package of care will necessarily involve a range of agencies working together. The exact focus and nature of provision will depend on the type of emergency, the impact it has had on the community, and people's needs.

Suggested amendment

Delete: this paragraph is repeated in better context in the 'Meeting Needs' section that lies directly below it on the same page

Humanitarian Aspects - Community Engagement

Community Engagement: paragraph 2

Original text

For example, an early public meeting can allow people to air their concerns and opinions; help the community to come to terms with the consequences of the emergency; and empower people to influence the scope and order of priorities in the recovery process. Depending on the nature of the incident, the inclusion of representatives from local faith communities and other relevant groups should be considered, as they can often be the key link to minority groups, especially where there are language difficulties and sensitivity issues.

Suggested amendment

For example, an early public meeting can allow people to air their concerns and opinions; help the community to come to terms with the consequences of the emergency; and empower people to influence the scope and order of priorities in the recovery process. In engaging the affected population, remember too that there may be people working in either the public, private or voluntary sector, who have the training and skills to bring diverse communities together in these and smaller forums. Such people can be useful in facilitating deliberations over what 'recovery' will mean (e.g. restoration or regeneration) and/or as arbitrators between conflicting individuals and/or organisations. Identifying which organisations, departments and/or individuals carry these skills and incorporating them into plans, beforehand, will mean that they will be able to prepare and resource this role more quickly and effectively when needed.

Depending on the nature of the incident, the inclusion of representatives from local faith communities and other relevant groups should be considered, as they can often be the key link to minority groups, especially where there are language difficulties and sensitivity issues.

7.3 Tools for recovery

As well as recommendations the Hull projects also generated a very useful deliverable

“Flood Snakes and Ladders”: The Hull Project Flood recovery game

The Flood recovery “Snakes and Ladders” game is a project output, which has been produced by Lancaster University and the Hull diarists in collaboration with the Cabinet Office. In due course, everything needed to play the game will be downloadable from the Project website

The development of the game has created an innovative training and professional development resource that will enable the results of our qualitative research project in Hull to be made accessible and useful to a wide range of policy and practitioner organisations, including those in the field of engineering and physical sciences. Specifically, it is anticipated that the following audiences may benefit from participating in the game:

1) Policy communities. The game will help organisations with a strategic role to play across two key areas of policy learning and change:

a) *Flood recovery* – UK flood policy is increasingly focused upon the need to build resilience and an important part of this process involves finding ways to improve people’s experiences of flood recovery. Using real-life stories to illustrate the findings from our research in Hull, the game provides the tools needed to help those in strategic roles consider how to provide better help and support to those affected by flooding. Beneficiaries include national, regional and local government e.g. Local Authorities, the Environment Agency and the Local Government Association. Specific examples include the Cabinet Office and the Association of British Insurers, who were on the steering group for the original project.

b) *Building resilience to disasters* – Current policy initiatives place a strong emphasis on the importance of building resilience to the many different types of disasters that could affect the UK. Recovery is fundamental to resilience and, by providing a practical illustration of the kinds of issues that can arise during the longer-term recovery process, the game will help strategic organizations with a role to play in building resilience to disasters more generally. Specific examples include the Cabinet Office who are currently working on policies to develop Community Resilience within the UK.

2) Practitioner communities. By highlighting the problems that can occur during recovery and providing examples of best practice, the game will be an important training and professional development resource for practitioner communities involved in disaster recovery. Specific examples of beneficiaries include those from the building restoration and construction sector, including the British Damage Management Association and the Property Care Association (trade associations for damage restoration companies). The emergency planning community will also benefit from the game. For example, the Cabinet Office Emergency Planning College are keen to use the game within courses on recovering from emergencies. Other examples of beneficiaries include the Local Government Association, which has a large community of emergency planners, and the Chartered Institute of Loss Adjusters (CILA), which works with the ABI. These organisations will be able to use the game as part of their internal training courses.

3) Local Communities. The Hull Flood Study shows that many of the problems experienced during recovery relate to the ways in which organizations treat the people that they come into contact with. By providing tools that policy makers and practitioners can use to improve the support that is offered to residents after a disaster, the game will benefit those affected by such incidents in future.

8. Suggestions for future research

8.1 Identifying the role of Local Authority Community/Localism staff in recovery

It has been suggested that community/localism staff can play a very valuable role in ameliorating the effects of long-term recovery at household/community level. There is, however, very little in terms of formal evidence to show what work has been done and/or what has been achieved and no recommendations for how these resources could be used most effectively.

This work would seek to identify:

- The mechanisms through which Local Authority 'community' staff been engaged with recovery activities (e.g. through RCG or other 'normal' processes) across a number of case-studies and types of emergency (e.g. flood, explosion, mass fatality)
- Identify examples of community-staff led recovery activity

- What resources (e.g. meeting venues) and/or skills (e.g. networking) are most useful and/or relevant in assisting 'community' staff practicing in affected neighbourhoods
- What training would be most useful for community workers to ensure that if an emergency happened in their 'community' they would be able to identify problems and potential solutions at the earliest opportunity.
- What is the threshold of impact (e.g. Social; local BCM) at which it becomes advisable to create a dedicated recovery-coordinator post (e.g. as occurred in Cockermonth after the 2009 floods), rather than relying on existing staff *extending* their pre-existing community organisation roles. In other words, how much frontline recovery work should staff realistically be expected to take on in addition to their existing workloads?

The main output from the project would be a training package that would be delivered to Local Authority 'community team' members to sensitise them to the issues they may be confronted by following an emergency in their community.

References

- ABI (2009a) *Repairing your home or business after a flood – how to limit damage and disruption in the future* Association of British Insurers London
- ABI (2009b) *Resilient Reinstatement: The costs of flood resilient reinstatement of domestic properties* Association of British Insurers
- ADGER, W. N. (2000) Social and ecological resilience: are they related? *Progress in Human Geography*, **24**, 3 347-364.
- ALEXANDER, D. (2002) *Principles of Emergency Planning and Management.*, Terra Publishing, Harpenden, UK
- BARDO, J. W. (1978) Organizational Response to Disaster: a typology of adaptation and change. *Mass Emergencies*, **3**, 87-104.
- BARTON, A. H. (1969) *Communities in Disaster: A Sociological Analysis of Collective Stress Situations*, Doubleday & Company, Inc., New York
- BELL, A. (2011) *Insurance Survey: results and analysis* Morpeth Flood Action Group Morpeth, UK.
- CABINET OFFICE (2008) *Identifying People Who Are Vulnerable in a Crisis Guidance for Emergency Planners and Responders* Civil Contingencies Secretariat London http://www.cabinetoffice.gov.uk/media/132976/vulnerable_guidance.pdf Accessed 09/06/09
- CABINET OFFICE (2010) *Civil Protection Lexicon: A developing single point of reference for UK Civil Protection terminology (Version 2.0.1)* Cabinet Office London <http://www.cabinetoffice.gov.uk/cplexicon> 13/04/11
- CABINET OFFICE (2011) *The role of Local Resilience Forums: A reference document* Cabinet Office London
- CALOUSTE GULBENKIAN FOUNDATION (1968) *Community work and social change* (Gulbenkian Report) Longman London
- CLARKE, L. (2002) Panic: myth or reality? *Contexts*, **Fall 2002**, 21-26.
- CLARKE, L. (2005) *Worst Cases: Terror and Catastrophe in the Popular Imagination* University of Chicago Press,
- COLES, E. & BUCKLE, P. (2004) Developing community resilience as a foundation for effective disaster recovery. *The Australian Journal of Emergency Management*, **19**, 4.
- CONVERY, I., MORT, M., BAILEY, C. & BAXTER, J. (2007) Role Stress in Front Line Workers during the 2001 Foot and Mouth Disease Epidemic: the value of therapeutic spaces. *The Australasian Journal of Disaster and Trauma Studies*, **2007/2**.
- CONVERY, I., MORT, M., BAXTER, J. & BAILEY, C. (2008) *Animal disease and human trauma: Emotional geographies of disaster*, Palgrave Macmillan, Basingstoke, UK.
- COULTHARD, T., FROSTICK, L., HARDCASTLE, H., JONES, K., ROGERS, D. & SCOTT, M. (2007) *The June 2007 floods in Hull* Final Report by the Independent Review Body for Hull City Council UK
- CUTTER, S. L. & EMRICH, C. T. (2006) Moral Hazard, Social Catastrophe: The Changing Face of Vulnerability along the Hurricane Coasts. *The ANNALS of the American Academy of Political and Social Science*, **604**, 1 102-112.
- DASH, N., PEACOCK, W. G. & MORROW, B. H. (1997) 'And the Poor Get Poorer'. IN PEACOCK, W. G., MORROW, B. H., & GLADWIN, H. (Ed.) *Hurricane Andrew: Ethnicity, gender and the sociology of disasters*. Routledge.London

- DEEMING, H., WHITTLE, R. & MEDD, W. (in press) Investigating resilience, through 'before and after' perspectives on residual risk. IN BENNETT, S. (Ed.) *Innovative thinking in risk, crisis and disaster management*. Gower.Farnham, UK
- DEFRA (2008) *Developing the evidence base for flood resistance and resilience: summary report* (R&D Technical Report FD2607/TR1) Defra London
- DEPARTMENT OF HEALTH (2009) *NHS Emergency Planning Guidance: Planning for the psychosocial and mental health care of people affected by major incidents and disasters: Interim national strategic guidance* (Gateway Ref: 12131) Department of Health London http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/DH_103562 Accessed 08/10/09
- DYNES, R. R. (1994) Community Emergency Planning: False Assumptions and Inappropriate Analogies. *Int Journal of Mass Emergencies and Disasters*, **12**, 2 141-158.
- EDWARDS, C. (2009) *Resilient Nation* Demos London
- EYRE, A. (2006) *Literature and Best Practice Review and Assessment: Identifying People's Needs in Major Emergencies and Best Practice in Humanitarian Response* Report commissioned by the Department for Culture, Media and Sport http://www.cabinetoffice.gov.uk/media/132790/ha_literature_review.pdf Accessed 09/06/09
- FIELDING, J., BURNINGHAM, K., THRUSH, D. & CATT, R. (2007) *Public response to flood warning* (SC020116) Environment Agency Bristol
- FOLKE, C. (2006) Resilience: The emergence of a perspective for social–ecological systems analyses. *Global Environmental Change*, **16**, 253-267.
- GALLOPIN, G. C. (2006) Linkages between vulnerability, resilience, and adaptive capacity. *Global Environmental Change*, **16**, 3 293-303.
- GILCHRIST, A. (2003) *The Well-Connected Community: A networking approach to community development*, The Policy Press, Bristol, UK
- HANDMER, J. & DOVERS, S. R. (2007) *Handbook of Disaster and Emergency Policies and Institutions*, Earthscan, London
- HARRIES, T. (2010) *Summary of findings – National Flood Forum 2010 survey of flooded individuals* National Flood Forum <http://floodforum.org.uk/files/Summary%20of%20findings.pdf> Accessed 05/04/11
- HARRIES, T. & BORROWS, P. (2007) *Can People Learn To Live With Flood Risk?* Defra 42nd Flood and Coastal Defence Conference York
- HCC (2007) *Finding our feet again* Hull City Council (on-line) http://static.hullcc.gov.uk/hullinprint/archive/sept2007/finding_our_feet.php Accessed 01/04/11
- HM GOVERNMENT (2009) *Emergency Response and Recovery Non-statutory guidance to complement Emergency Preparedness*. (Version 2) HM Government, Civil Contingencies Secretariat <http://www.cabinetoffice.gov.uk/ukresilience/response.aspx> Accessed 30/08/09
- KENDRA, J. M. & WACHTENDORF, T. (2003) Creativity in Emergency response to the World Trade Center Disaster. *Beyond September 11th: An Account of Post-Disaster Research: Special Publication No 39*. Natural Hazards Research and Information Center.University of Colorado, USA
- KLEIN, R. J. T., NICHOLLS, R. J. & THOMALLA, F. (2003) Resilience to natural hazards: How useful is this concept? *Global Environmental Change Part B: Environmental Hazards*, **5**, 1 35-45.
- LEDWITH, M. (2005) *Community Development: a critical review*, The Policy Press, Bristol, UK
- MEDD, W. & MARVIN, S. (2005) From the Politics of Urgency to the Governance of Preparedness: A Research Agenda on Urban Vulnerability. *Journal of Contingencies and Crisis Management*, **13**, 2 44-49.

- MILETI, D. S. & SORENSEN, J. H. (1990) *Communication of emergency public warnings: A social science perspective and state-of-the-art assessment* Colorado State University
<http://emc.ornl.gov/EMCWeb/EMC/PDF/CommunicationFinal.pdf>
- MORT, M., CONVERY, I., BAILEY, C. & BAXTER, J. (2004) *The Health and Social Consequences of the 2001 Foot and Mouth Disease Epidemic in North Cumbria* Lancaster University, UK
www.lancs.ac.uk/shm/dhr/research/healthandplace/fmdfinalreport.pdf Accessed 04/01/2010
- NIGG, K. (1995) *Disaster Recovery as a Social Process* (Preliminary Paper #219) University of Delaware, Disaster Research Center Accessed 04/01/10
- NIGG, K. & MILLER, J. M. (1994) *Event and Consequence Vulnerability: Effects on the Disaster Recovery Process* (Preliminary Paper #217) University of Delaware, Disaster Research Center <http://dspace.udel.edu:8080/dspace/handle/19716/350> Accessed 04/01/10
- O'BRIEN, G. & READ, P. (2005) Future UK emergency management: new wine, old skin? *Disaster Prevention and Management*, **14**, 3 353.
- PARKER, D. J., TUNSTALL, S. M. & MCCARTHY, S. (2007) New insights into the benefits of flood warnings: Results from a household survey in England and Wales. *Environmental Hazards*, **7**, 3 193-210.
- PERKINS, E. (2011) From here, the earth looks different now: not benign. *The Guardian* London, Saturday 26th February 2011, p.32
- PERROW, C. (1999) *Normal Accidents: living with high-risk technologies*, Princeton University Press, New Jersey
- PITCHFORD, M. (2008) *Making Spaces for Community Development*, Policy Press, Bristol, UK
- PRIEST, S. J., CLARK, M. J. & TREBY, E. J. (2005) Flood Insurance: the challenge of the uninsured Area, **37**, 3 295-302.
- QUARANTELLI, E. L. (1999) *The Disaster Recovery Process: What we know and do not know from research* (Preliminary Paper #286) University of Delaware, Disaster Research Center
- RAMSBOTTOM, D., WADE, S., BAIN, V., PENNING-ROWSELL, E., WILSON, T. & FLOYD, P. (2005) *Flood Risks to people: Phase 2* (FD2321/ TR2 - Guidance Document) Environment Agency Bristol
- REVERE, C. J. (2011) Children and Disasters: breaking the cycle of neglect. *Natural Hazards Observer*, **XXXV**, 4 1, 14-15.
- RUBIN, C. B. & POPKIN, R. (1990) *Disaster recovery after Hurricane Hugo in South Carolina* (Working Paper #69) The Natural Hazards Research and Applications Information Center Boulder, Colorado
- SOLNIT, R. (2009) *A Paradise Built in Hell: the extraordinary communities that arise in disaster*, Viking Books, New York
- STEINFÜHRER, A. & KUHLICKE, C. (2009) *Communities at risk: vulnerability, resilience and recommendations for flood risk management* (FLOODsite, T11-07-15) FLOODsite, Centre of Environmental Research, a member of Dresden Flood Research Center
http://www.floodsite.net/html/partner_area/project_docs/T11_07_15_Vulnerability_resilience_ExecSum_v2_2_p01.pdf 22/06/10
- THRUSH, D., BURNINGHAM, K. & FIELDING, J. (2005) *Flood Warning for Vulnerable Groups; A Qualitative Study* (R&D Technical Report W5C-018/3) Environment Agency Bristol UK
- UN/ISDR (2004) *Terminology: Basic terms of disaster risk reduction* UN International Strategy for Disaster Reduction (on-line) <http://www.unisdr.org/eng/library/lib-terminology-eng%20home.htm> Accessed 03/03/08
- WALKER, G. P., BURNINGHAM, K., FIELDING, J., SMITH, G. & THRUSH, D. (2006) *Addressing Environmental Inequalities: Flood Risk* Environment Agency Bristol. UK

- WALKER, M., WHITTLE, R., MEDD, W., BURNINGHAM, K., MORAN-ELLIS, J. & TAPSELL, S. (2010) *Children and Young People 'after the rain has gone' learning lessons for flood recovery and resilience* (Hull Children's Project Final Report) Lancaster University, UK
- WENGER, E. (2000) Communities of Practice and Social Learning Systems. *Organization*, 7, 2 225-246.
- WHITTLE, R., MEDD, W., DEEMING, H., KASHEFI, E., MORT, M., TWIGGER ROSS, C., WALKER, G. & WATSON, N. (2010) *After the Rain – learning the lessons from flood recovery in Hull, final project report for "Flood, Vulnerability and Urban Resilience: a real-time study of local recovery following the floods of June 2007 in Hull"* Lancaster University Lancaster, UK
- WISNER, B. (2001) 'Vulnerability' in *Disaster Theory and Practice: From Soup to Taxonomy, then to Analysis and finally Tool*. International Work Conference Disaster Studies of Wageningen University and Research Centre 29/30 June 2001

Appendices

Appendix 1: Supplementary Briefing Note

Introduction

This briefing note is drawn from a detailed report that was commissioned by the Cabinet Office following the publication of Lancaster University's [Hull Flood Project](#) and [Hull Children's Flood Project](#) reports. Its principal purpose is to identify how findings made as a result of the two research projects could be integrated into [National Recovery Guidance](#) (NRG), as a means to improve affected communities' ability to recover from emergency events. In addition to its main remit of drawing on lessons learned from the specific context of the Hull 2007 floods, it also includes insights from more recent, informal research that both authors have undertaken following flooding in Cumbria (Nov, 2009) and Cornwall (Nov, 2010). Although flooding is the focus of the case studies discussed, the reader is encouraged to consider whether the lessons described here also bear relevance for those tasked with planning recovery strategies in relation to other kinds of emergency.

Recovery

In the context of this briefing note, recovery should be understood as:

The **process** of rebuilding, restoring and rehabilitating the community following an emergency or disaster, continuing until the disruption has been rectified, demands on services have been returned to normal levels, and the needs of those affected have been met (Cabinet Office, 2010: emphasis added)

These projects used this understanding of recovery to evaluate people's experiences for a period of two years after a major flood event. Their key finding was that the study participants **regarded their experiences of the recovery process to be worse than their experience of the original flood event.**

Vulnerability

During the research it was found that current civil protection sector approaches to vulnerability assessment lack the sensitivity to differentiate between *event vulnerability*, i.e. factors that make people vulnerable to hazards (e.g. disability, old age), and *consequence vulnerability*, i.e.

factors that make people susceptible to the more indirect impacts experienced during the recovery process (e.g. private tenants having no flood insurance).

Looking at these experiences from this social-vulnerability perspective, it was found that current recovery guidance contains a number of gaps. These result in four key problems during disaster recovery:

1. Existing recovery guidance fails to deal with the problems that residents experience as a result of the 'recovery gap'. This appears at the point where the legally-defined contingency arrangements and assistance, provided for the affected community by its public authorities and agencies, diminish and where the less well-defined services provided by the private sector (e.g. insurance, building industry) start.
2. The nature of the recovery *process* means that there are inevitable limitations in advocating that hazard-exposed communities should build resilience through developing formal, predominantly *response-focused*, Community Emergency Plans.
3. There is a need to better acknowledge that Frontline Recovery Work can be rewarding, but also extremely challenging for employees required to perform these emergent, extended or expanded roles. It was also found that, over the long term, the need for some of these new and/or additional frontline roles persists for longer than is currently resourced
4. There is a need for the more effective advocacy of measures that may reduce the negative effects of the recovery process on children and young people

Together, the fact that these gaps exist in guidance could mean that problems experienced by affected communities' – as they 'journey' from hazard impact, through rebuilding and restoration, toward rehabilitation – could remain invisible to people who could actually do something to reduce them.

Our report makes three recommendations to acknowledge and mitigate the existence of these consequence vulnerabilities. These are described in the following sections:

Recommendations

1) Reducing the Recovery Gap

The problem of the recovery gap results from the fact that, in the UK, the longer-term recovery process is largely dictated and managed by the actions of private companies. These companies deal with people on a highly individualised basis. They also tend to be outside the direct control of civil protection legislation and largely beyond the influence of the Recovery Coordination Group (RCG).

Our research suggests that the Government can deal with this problem in two ways. Firstly, it can continue the crucial task of encouraging the private sector to improve its working practices (e.g. through continuing its ongoing work with the insurance industry focused on maintaining insurance availability and affordability)²⁴. Secondly, the Government, at all levels, maintains a role in helping residents deal with the problems of the private sector during recovery. One of the principal learning points that came out of the Hull research was that, when people talk to each other, they can find ways of helping themselves more effectively. This is because, when doing so, they are effectively ‘comparing notes’ and sharing knowledge, skills and emotional support: in effect, they are becoming more resilient through learning. Such collaboration counters the individualised way in which recovery is managed by the private sector. We therefore recommend that the Government explores the possibility of developing facilitated community groups during the longer-term recovery process following a disaster. Crucially these groups must be plugged into effective and professional advice, information and arbitration services in order to help people with the more intractable kinds of issues that go beyond their abilities to help themselves. We have suggested that such networking resources could be identified in advance through effective pre-event planning.

2) Recovery work is not just about emergency planning

From an emergency planning perspective, it is doubtless the case that some individuals in hazard-exposed communities will engage in household or [Community Emergency Planning](#) (CEP) in a way that may reduce their losses in the event of an emergency. However, our research suggests that even people who have been hazard affected do not necessarily consider planning to be a realistic or desired proposition. This is not to denigrate the concept of CEP, but merely to highlight the fact that any suggestion that community plans provide an achievable recovery panacea should be regarded sceptically. Such scepticism can be based on the evidence, which suggests that, even with the best plans in place, residents will still be subjected to the kinds of ‘recovery gap’ issues – for example ‘cowboy’ builders or obstructive insurance procedures – that, according to our research, caused them more stress than the flood itself. Furthermore, it is virtually impossible for householders to plan for this recovery *process*, as a result of the individualised way in which residents are dealt with by the private sector (e.g. how does a household or community develop a plan for how it is going to negotiate the recovery of a

²⁴ For example: In response to the Pitt Review the Association of British Insurers (ABI) has published statements that lay out what [professional partners](#) and [households](#) should expect from their members during emergencies

damaged property with a combination of [*delete as appropriate*] loss adjuster/builder/utility company/furniture retailer/landlord/etc.?).

So, if emergency planning is not the fundamental key to ensuring that a community has the ability to recover after an emergency, what can be done to reduce the stress of people's recovery journeys? In order to overcome this problem, we suggest that local government has a responsibility to prepare and implement an effective plan for community engagement during recovery. The next section outlines how this plan could be developed in more detail.

Community Engagement

Once the response phase is over, there is a need to acknowledge that the responsibility for dealing with the emergence of consequence vulnerabilities falls most heavily on partners whose employees are not traditionally defined as 'Responder-trained' staff.

So, while individuals, households and communities exposed to hazards may not be able to plan how they will negotiate the recovery process in advance, our research suggests that local government could assist communities in this predicament, *in advance*, by training and by mapping resourcing contingencies for, those members of their staff who could reasonably be expected to be found at the forefront of community recovery activity (i.e. Community Teams²⁵). These are people, in which an investment has already been made in terms of social-skills training and development. Unsurprisingly, therefore, these are people who should be regarded as capable of forming effective networked connections within and between affected communities and others; networks through which vulnerable people can be enabled to access the most appropriate forms of help, advice and advocacy. From a bottom-up perspective, this type of recovery *facilitation* involves the identification of site-specific problems – both during pre-planning and during the recovery process itself – and, where possible, solving these problems using local knowledge and resources.

In addition to the specialist community staff, local authorities should also recognise that they have other frontline staff whose role is also predicated on their working closely with individuals and communities (e.g. advice centre staff) and that these staff too can provide an important conduit for information travelling out from the affected community. Such staff should be recognised as being highly likely to understand what problems these communities are facing

²⁵ This term should be understood as relating to the various Community Teams; Community Units; Community Development Workers; Localism Teams, etc. within all local authorities

and how many people are facing them, with greater clarity than those in more removed positions.

Whilst the Recovery Coordinating Group (RCG) is designed as a strategic-level structure, it is suggested here that a principal priority of the RCG should be to develop strategy and timeframes that are fully informed by the on-the-ground experience of frontline recovery workers as well as by others such as Elected Members (i.e. there must be a way for information about community needs to travel from the bottom up, not just from the top down).

In terms of community self-help, such a bottom-up approach to information flow could be suggested to be preferable to maintaining the top-down 'command, control and coordination' approach of the original response effort. For whilst a purely strategic approach to recovery may appear to be *equal* in its treatment of all the affected, it may actually be *inequitable*. This is because any inflexible approach, which is not informed by local circumstances, is likely to be blind to potentially significant local vulnerabilities, which may unfairly prolong the disruption experienced by some community members over others.

In addition to these recommendations to value and to resource the information gathering and resilience-building role of community workers and other frontline staff, it is also suggested that Emergency Planning staff should be encouraged to expand their links across a wider range of local authority departments, public agencies and voluntary-sector organisations. This should be done in order that effective contingencies for the mitigation of *consequence* vulnerabilities can be co-developed in slow time (e.g. by developing provisions for the delivery of an arbitration service capable of reducing tensions between, for example, affected households and their insurance companies).

3) Frontline Recovery Worker (FLRW) welfare

Frontline recovery work can be rewarding but also very stressful, particularly for those staff who have themselves been affected by the emergency-inducing hazard. Therefore, it is recommended that frontline staff should be proactively supported throughout the recovery period. Furthermore, if they are found to have worked 'beyond the call of [normal] duty', then these workers should be granted some form of official recognition for their efforts (e.g. through awards or letters of appreciation).

It is also recommended that the value and challenges of frontline recovery work should be formally acknowledged, with an amendment to Chapter 7 of 'Emergency Response and Recovery', which currently only acknowledges the needs and welfare of response workers.

4) Supporting Children and Young People

It has been acknowledged that disasters have direct and indirect effects on children and young people and that these effects can be life-shaping (e.g. exam failure, domestic turmoil). Therefore, it is recommended that any schools that have been affected by a disaster, or that take in students from disaster-affected schools, should be strongly encouraged to seek outside expert guidance on how to best identify and assist any child or young person who might be disadvantaged by event or consequence effects.

Summary

This briefing note has summarised the results of two qualitative research projects and laid out recommendations, which encourage the UK Civil Protection sector to consider different ways to deliver the recovery process to emergency-affected communities. Much greater detail of the pro-offered arguments can be found in the full project report [linked from cover page], which also contains a series of suggestions regarding more minor changes to sections of the existing NRG text.

Appendix 2: The Hull Floods Project: Executive Summary

The report shows that it is often not so much the floods themselves, but what comes afterwards, that people find so difficult to deal with. The research on which this report is based aimed to undertake a real-time longitudinal study to document and understand the everyday experiences of individuals following the floods of June 2007 in interaction with networks of actors and organisations, strategies of institutional support and investment in the built environment and infrastructure. It had the following objectives:

- To identify and document key dimensions of the longer term experience of flood impact and flood recovery, including health, economic and social aspects.
- To examine how resilience and vulnerability were manifest in the interaction between everyday strategies of adaptation during the flood recovery process, and modes of institutional support and the management of infrastructure and the built environment.
- To explore to what extent the recovery process entailed the development of new forms of resilience and to identify the implications for developing local level resilience for flood recovery in the future.
- To develop an archive that will be accessible for future research into other aspects of flood recovery.

The flooding which affected the city of Kingston-upon-Hull took place in June 2007. Over 110mm of rain fell during the biggest event, overwhelming the city's drainage system and resulting in widespread pluvial flooding. The floods affected over 8,600 households and one person was killed. Our research used in-depth, qualitative methods where 44 people kept weekly diaries and participated in interviews and group discussions over an 18-month period. We also carried out extensive stakeholder engagement through a project steering group, stakeholder presentations, workshops and consultation responses.

The Recovery Gap

- Key to the findings is the identification of a 'recovery gap'.
- This emerges during the longer process of recovery at the point where the legally-defined contingency arrangements provided to the community by its local authority diminish and where the less well-defined services provided by the private sector (e.g. insurance, builders *etc.*) start.
- The nature of the gap means that residents receive little effective support during this time. As a result, they must step in to coordinate the actions of the different private and public sector organizations involved. Such project management is challenging, time-consuming and stressful.

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 might be expected. 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.
- Flood recovery is a long and difficult process with no clear beginning or end point. Far from showing a steady process of improvement, it is punctuated by a distinct series of 'highs' and 'lows' which are closely tied with other issues that are going on in a person's life.
- People's experiences of recovery are also linked to the ways in which they are treated by the different companies and organizations involved in the recovery process. 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.

- Recovery does not end when people move back into their homes and neither do things go back to ‘normal’ as there are aspects of everyday life which have fundamentally changed – both for better and for worse.

What does the process of flood recovery involve?

- The recovery process involves new and often psychologically challenging kinds of physical, mental and emotional work for residents, many of whom step in to ‘project manage’ the repairs.
- In addition to the new work of flood recovery, everyday tasks such as washing, cooking and commuting can also become more difficult as a result of living in temporary accommodation.
- Front line workers, who helped and supported flooded residents through their job roles, played an important part in the recovery process. Workers can also be vulnerable to the impacts of flood recovery – especially if they were also dealing with their own repairs at home.

What does ‘recovery’ mean’?

- Flood recovery is about rebuilding a sense of home and community as residents adapt to a new and altered set of circumstances.
- People’s sense of the future also changes in different ways. For some, this means fatalistic attitudes towards rain, climate change and government bodies emerging. However, others are engaging in debates about public participation in how the built environment is managed, and are developing their own ‘resilience’ strategies for future floods.

Suggestions for Action

Our study identified some specific ways to address the recovery gap. These are highlighted in Table 2 on p.121 of the main report and we recommend that all readers refer to this in addition to reading this summary. However, we also identified a series of broader framing issues to do with the ways in flood recovery is conceptualised and managed:

1. Developing more flexible notions of ‘recovery’ in formal frameworks

Our study shows that recovery is more complex than existing frameworks for recovery delivery allow. As a result, it is important to ensure that the support that is given to communities reflects their longer-term needs, priorities and timescales, rather than the shorter-term goals of the emergency planning community.

2. Developing an ‘Ethic of Care’

Our research shows 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 should adopt an ‘ethic of care’ to the householder. This will involve encouraging different companies and organizations (e.g. loss adjustors, ‘disaster restoration companies’, drying companies, builders etc.) to recognize the role that they play in delivering the recovery process, with associated responsibilities towards householders. Developing appropriate support for frontline workers should also be included in this ‘ethic of care’.

3. Building in spare capacity and capability

This study supports the conclusions of other research on disaster management by showing the need for spare capacity and capability within institutions so that they are able to respond to the uncertainties that unfold during and after a disaster. Both capacity and capability may emerge from more informal working practices rather than those documented in protocols and job descriptions. Promoting greater flexibility in terms of both institutional roles and individual job descriptions 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.

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

Our project methodology shows the importance of creating spaces where people can share their experiences in a way that enables them to learn from and support each other, and where key stakeholders can attend these events to learn from householders in a facilitated context. The process we have developed provides a potentially powerful tool for public participation in policy making.

5. Understanding and addressing vulnerability

While vulnerability may, in part, be related to pre-existing social characteristics (our study highlights particular issues associated with older people, council tenants and private renters), it is the *interaction* of these factors with the specific circumstances operating in a person’s life which determines how and when they may become vulnerable. Vulnerability is therefore a dynamic process that is related to the ways in which the recovery process is managed. Thus while specific indicators such as age and disability may provide a starting point, our research suggests that it is necessary to give workers greater freedom when defining vulnerability so that they can use their knowledge to prioritise those who need help most.

6. Building resilience

Table 2 identifies key actions that could be taken to improve flood recovery. However, to build resilience for the future will require looking more fundamentally at the characteristics of contemporary social life and the vulnerabilities that society 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 learn from the ways in which forms of resilience and vulnerability were created, revealed and disrupted during the flood and the recovery process. We hope this report has assisted this learning.

Appendix 3: Hull Children's Flood Project: Executive Summary

Summer 2007 was a time of misery for thousands of households as unprecedented rainfall levels resulted in widespread flooding across the UK. The flooding was particularly severe in the city of Kingston-upon-Hull. Over 110mm of rain fell during the biggest event, overwhelming the city's drainage system and resulting in widespread pluvial flooding. The floods affected over 8,600 households, one man died and 91 of the city's 99 schools were affected (Coulthard et al. 2007b). However, our research shows that establishing who was affected – and how – is more complex than the statistics suggest.

This report details the findings from a participatory research project that set out to identify key issues in children and young people's experience in relation to resilience to flooding and the flood recovery process. Overall the report shows that the flood recovery process was stressful for the flood-affected children in a variety of ways, just as it was for the adults who took part in a 'sister' research project²⁶. The children differed from the adults in that they found it exciting on the day. However this feeling of exhilaration was quickly replaced by frustration caused by the daily disruption they experienced during the long-term recovery process.

Relatively few accounts of flooding have considered the perspectives of children and the role they might play in building resilience in the future. Funded by the Economic and Social Research Council, the Environment Agency and Hull City Council, the project engaged with children (aged 9-19 years) in Hull and identifies key issues in children's experiences in relation to resilience to flooding, the recovery process and the implications for future resilience. Our research used Storyboards (where participants drew pictures or used creative writing to tell their stories), short one-to-one interviews and focus groups with 46 young participants. We also worked with 18 adults, involving in-depth interviews with key service providers and front line workers, together with stakeholder engagement through a project steering group. The project had the following objectives:

- 1) Document children's experiences of flood impact and the flood recovery process, including social, educational and emotional aspects, and the impacts upon wellbeing.
- 2) Analyse the relationship between children's experiences and their accounts of the role of formal and informal support in enabling or inhibiting resilience during the flood recovery process.
- 3) Evaluate the lessons learnt by key agencies in the delivery of services for children, as well as wider services, in the post-disaster recovery period.
- 4) To contribute to the archive generated by the Adult Hull Flood Study and to enable children's voices to become part of the flooding debate.

Key findings

The children are a diverse group and our research showed their experiences were many and varied. Hence, there is no such thing as a homogenous 'child's perspective' on the floods. However, there are certain shared experiences that provide an insight into how disaster recovery can be improved:

- The children's accounts suggest that they already had complex routines and family and social relations. These were disrupted in a number of ways and it is therefore important to contextualise the floods within the rest of their lives. The children who were flooded at school and at home (and in some cases at both their mother's and father's separate homes) experienced extra pressures in coping during the recovery process. It is also important to contextualise the impact of the floods within the broader context of the city

²⁶ Whittle, R., Medd, W., Deeming, H., Kashafi, E., Mort, M., Twigger Ross, C., Walker, G., Watson, N. (2010) *After the Rain – learning the lessons from flood recovery in Hull*, final project report for 'Flood, Vulnerability and Urban Resilience: a real-time study of local recovery following the floods of June 2007 in Hull', Lancaster University, Lancaster UK www.lec.lancs.ac.uk/csrm/hfp

itself. Hull is characterised by high levels of socio-economic deprivation and many of the children came from low income households, which had a further impact on the family's ability to recover.

- The children's experiences changed over time; at the start of the flood it was exciting for some of them (e.g. moving out of their home and into a caravan was an adventure) but this exhilaration quickly subsided. As a result, it is important to pay attention to the recovery process and not just the event itself.
- The children talked in detail about the disruption (at home and at school); their losses (both tangible e.g. possessions and intangible e.g. family time) and the ensuing stress this caused, leaving some with a pragmatic approach and others fearful about how they would cope if it happened again.
- The children's positive and negative coping strategies and the subsequent changes that the flood brought to their lives are linked to how their parents and teachers reacted. Having some involvement in the repairs and recovery process helped the children to cope better, such as being included in family discussions or providing practical help (e.g. helping to move belongings upstairs, taking tea to the builders).
- Some older children were 'forgotten'. The data reveal a recovery gap particularly amongst the adolescents: i) youth workers assumed the adolescents were being helped at school and at home, whereas some teenagers had no-one to turn to and ii) pupils in transition from primary to secondary school (particularly the 2007 Year 5 cohort who moved in 2008), who had not been recognised at school as flood-affected pupils.

Suggestions for Post Disaster Recovery Action

1. Policy makers, practitioners and researchers need to pay more attention to the recovery process and how children can be supported at home and at school.
2. Parents and carers need to consider ways in which they can involve (rather than exclude) children in the recovery process.
3. The education system (at both local and national level) needs to take the long-term recovery process into account for individual pupils, especially pupils in transition between schools and for those about to begin, or currently working towards, examinations, such as GCSEs.
4. Key service workers need to adopt a more flexible understanding of vulnerability so that the needs and concerns of *all* children and young people are considered. They should also be proactive when offering support because children and young people will not necessarily ask for help.
5. It is important to provide effective support for the front line workers (for example, teachers, classroom assistants, youth group leaders etc.) who work with children and young people.
6. It is important to accommodate children and young people's voices into building resilience for the future – for example, in order to help deal with the challenges of climate change. Service workers should talk to flood-affected children about their experiences of living through an extreme weather event and the kinds of changes they would like to see in future.
7. Storyboards may be a helpful means of incorporating children's voices into policy and practice. We suggest that schools and youth groups consider using storyboards to help young people deal with floods and other kinds of disaster recovery.
8. More needs to be done to enable research to be commissioned quickly in the aftermath of disasters.

In addition to its core focus on floods, the report's conclusions have relevance to other forms of disaster recovery as well as wider issues of institutional change management involving children and young people.

Project team Will Medd, Marion Walker and Rebecca Whittle (Lancaster University), Kate Burningham and Jo Moran-Ellis (University of Surrey), Sue Tapsell (Middlesex University)