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'Flood Advocacy & Support Service for Communities in Wales'

Final Research Report and Recommendations

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This document has been prepared by Jake Elster Jones and Andrew Darnton
AD Research & Analysis Ltd for the Welsh Government Flood and Coastal
Erosion Risk Management Team

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1. Executive Summary

This is the final report of a project investigating support needs in communities affected by flooding in Wales and how these might best be met. The project has been carried out by AD Research & Analysis Ltd, with Dr. Lorraine Whitmarsh and Dr. Catherine Butler from Cardiff University, for the Welsh Government.

The whole study, and this final report, has been designed to provide practical recommendations for developing flood support provision in Wales. In so doing, it answers the call of the project brief, to respond to the Sustainability Committee of the National Assembly for Wales' Flood Inquiry's call for a "*Welsh Flood Forum*". In the end, the study has developed recommendations not only for a Flood Support Service for Wales, but also a National Framework for Flood Support, to be owned by the Welsh Government and co-ordinated by the Flood Support Service.

This report moves from an objective overview of the evidence on what makes a difference to flood impacts, through an identification of the required tasks in flood support (structured around the flood cycle: before, during, and after flood), before reaching clear recommendations for the Flood Support Framework, and Service for Wales. The main points from the final report are summarised below, using that same structure.

i) The Challenge of Flood Support

The opening section of this report presents the wide range of interacting factors and influences that the evidence suggests can make a difference to flooding outcomes for individuals and communities. These range from the nature of the flood incident itself and underlying socio-economic conditions, via individual psychological factors (like attitudes and awareness) and individual/community actions, to support provision and flood management by agencies, and approaches to policy and governance.

In addition to these factors and influences, flooding inherently presents a range of other challenges that need to be considered. Many of these include challenges shared with other sustainability problems; these include:

- the unpredictable nature of flooding;
- the need for local and context-specific responses;
- the fact that no one actor or organisation can address flooding on their own;
- the fact that flooding is often a source of disagreement and contention.

Following on from these challenges, the study identifies a number of implications for the provision of flood support to communities in Wales. The implications include that:

- Locally specific, tailored and flexible responses are required.
- Certain principles and approaches need to be consistently applied and widely practised in all places by those providing flood support.
- A whole system perspective and approach is necessary, while nonetheless attending to specific details and parts of the system (such as effective warning provision).

- Collaboration and partnership is essential (between delivery partners and with those affected by flooding).
- Care needs to be taken, and assumptions critically examined, with respect to individual attitudes and behaviours; existing approaches and knowledge should also be drawn on where they are found.
- It is important to acknowledge existing community capacities, as well as the need for external expertise, support and facilitation.

Crucially, developing support for communities affected by flooding needs to be seen in the context of existing frameworks and provision. These include emergency response and flood risk management legislation (and associated frameworks and practice), as well as frameworks and provision that do not explicitly relate to flooding (such as community development work; Sustainable Development frameworks; and Fire and Rescue Service safety work).

ii) A Framework for Flood Support

A broad framework for the development of flood support in Wales is identified. This consists of:

- An idealised series of tasks that can be mapped onto a flood ‘cycle’ (or Integrated Emergency Management (IEM) cycle): broadly before, during and after flooding.
- A set of cross-cutting themes relevant to many or all phases in the flood cycle, which describe ways of working or general principles which all flood support provision should aspire to.

These elements can be outlined as follows:

Tasks

- T1. Identify, and develop a shared understanding of, a flood risk or problem
- T2. Identify and address differential vulnerabilities
- T3. Identify existing capacities and resilience
- T4. Emergency planning
- T5. Planning for recovery
- T6. Identify and enact risk management responses
- T7. Emergency response
- T8. Support recovery
- T9. Assess, learn and improve (including building resilience; and regeneration)

Cross-cutting Themes

- x1. Working with those affected by flooding – community participation and involvement
- x2. Building capacities and resilience
- x3. Organisational aims, framing and approaches
- x4. Taking a whole system approach
- x5. Understanding and influencing individual psychological factors and behaviours
- x6. Learning, change and improvement
- x7. Joining up

The Flood Support Framework is designed to complement, not supersede, existing elements of provision and existing frameworks. It should be seen as an overarching layer which highlights the integrated nature of the challenge of providing flood support and opportunities for joining-up, both between providers, and across phases of the flood cycle. The Flood Support Framework should also help to identify where there are gaps in provision, or current provision needs to be refined. Meanwhile, the cross-cutting themes identified should be used to design future provision, and be integrated into current activity. In cases where this proves impossible, it could suggest that current activity needs to be reviewed.

In addition to these tasks and themes, our study identified a large body of detailed evidence about the specifics of flood support, such as improving access to affordable flood insurance, increasing uptake of household-level resistance and resilience measures, and the provision of effective flood warning systems. All of this detail is relevant, yet context-specific; what is appropriate in a particular time and place will need to be worked out by support providers in collaboration with communities, as part of the process of undertaking tasks and applying themes.

iii) Delivering the Flood Support Framework

Delivering the Flood Support Framework for Wales will require close collaboration between Government, delivery partners and communities.

Based on the challenges identified from the evidence on flood support, our study identifies a list of attributes that the Welsh Government will need to deliver the Flood Support Framework effectively:

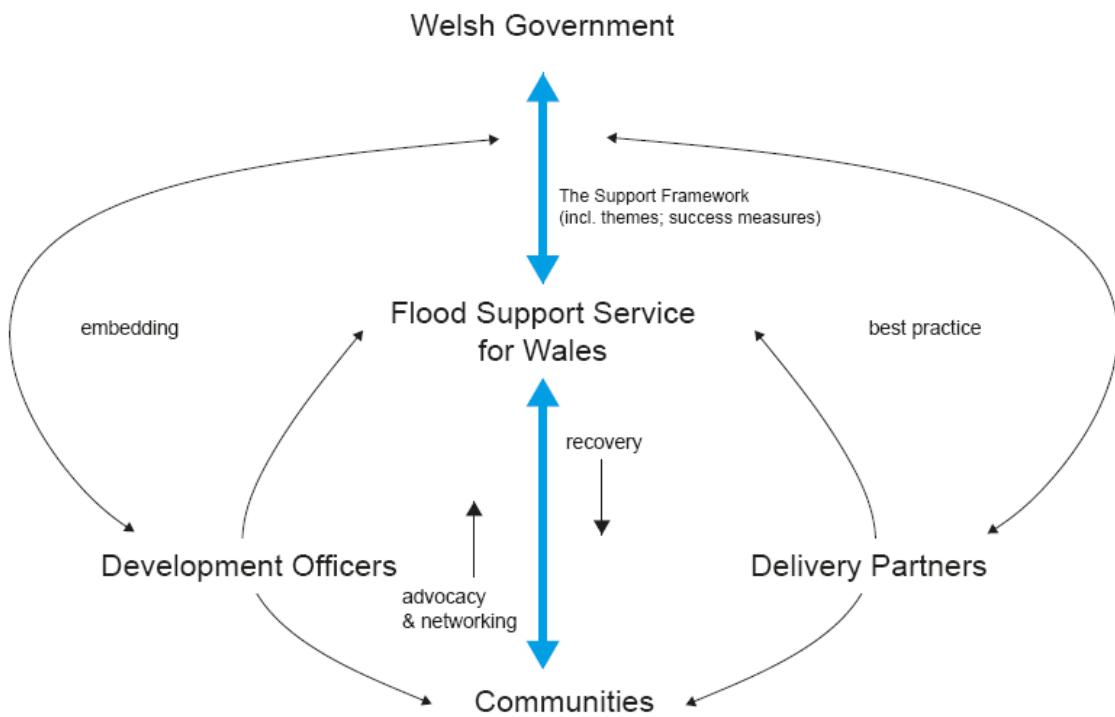
- Flood expertise, and the ability to develop expertise
- A public facing capacity, with the ability to: meet the needs of communities (e.g. for specialist post-flood support and advocacy); and feed information from communities back up to senior policy makers and other stakeholders (e.g. about their needs).
- Close involvement with, and influence over, multiple stakeholders.
- Capacity to provide hands-on advice, expertise and training to stakeholders.
- Ability to work across and integrate all stages of the flood cycle.
- A role in, or links with, national level debates and deliberation.

In order to acquire and develop these attributes, we propose that the Welsh Government Flood and Coastal Erosion Risk Management Team set up a dedicated and arms length **Flood Support Service for Wales** (FSSW). The Service should be designed to meet the identified needs for:

- Expertise in the experiences and needs of flood affected communities.
- Provision of hands-on support to flood-affected individuals and communities.
- An arms-length body that is able to advocate for communities affected by flooding and which is trusted by communities.
- Better joining-up and communication between the local community level and delivery agencies/policy makers.

A FSSW would take a central co-ordinating role in the delivery of the Framework, as shown in the figure below:

Figure 1: Delivery model for a Flood Support Framework for Wales



As the figure shows, the Support Service would need to focus in two directions: providing a resource for Welsh Government, while also meeting the needs of flood affected communities. In order to do the latter, it would also interface with delivery partners, and with Development Officers, through whom it would provide additional expertise and support to communities.

The role of Development Officers is particularly critical given the evidence that building community capacity and resilience is one of the few aspects of flood support provision which can be considered universally relevant regardless of context – because community resilience is associated with improved flood preparedness and better outcomes. At the same time, embedding flood preparedness within wider community development work should offer a route in to communities who are currently less engaged in or sceptical about flood awareness and support work.

The FSSW should support all the other four parties in delivering the Flood Support Framework, and build their skills in order to do so. The role of each of the other parties can be outlined as follows:

Delivery partners (including those agencies and organisations already involved in flood risk management and emergency planning, response and recovery) will, for example: have ownership of specific tasks within the Flood Support Framework; ensure cross-cutting themes are integrated with existing activity; work with communities (supported by

the FSSW); help develop expertise; and play a role in evaluation, learning and improvement within their own organisation and the Flood Support Framework as a whole.

Development Officers (e.g. front line workers and organisations delivering support to individuals and communities in Wales, such as Local Authority community development workers, Pathfinder Officers, and grant-making Development Officers) would play a vital role in delivering the Flood Support Framework. As described above, this role would include embedding general and flood-specific capacity and resilience building into their work with individuals and communities. Associated with this, Development Officers should help normalise flood preparedness in communities, and support communities in addressing local flood risks (e.g. by facilitating more effective engagement with relevant agencies). Note that given the vital role identified for Development Officers, it will be essential to ensure there is sufficient Development Officer capacity to undertake flood preparedness and support work across Wales for a number of years. In turn this may mean funding additional Development Officer capacity – although these should not be dedicated ‘flood officers’, but officers for whom flood is one part of a wider community development and sustainability remit.

Communities (including individuals, businesses and community groups) would provide local expertise and knowledge to delivery partners and Welsh Government; and engage with flood risk identification, appraisal and response.

We propose that the **Welsh Government** should have ultimate responsibility for ensuring the integrated delivery of the Flood Support Framework, with specific tasks within it falling to different delivery partners (subject to their refinements and agreement). Ultimate responsibility for the cross-cutting themes and success measures is also proposed to rest with Welsh Government. The FSSW would answer to the Welsh Government and co-ordinate Flood Support Framework delivery on its behalf.

The cross-cutting themes and success measures effectively act as the core content which binds the providers together around the Flood Support Framework. The success measures should be developed in collaboration with the delivery partners, in a process co-ordinated by the FSSW. While that task lies in the future, the report concludes by setting out some indicative success measures which could serve as starting points; these include both process and outcome indicators. We suggest that the success of the Flood Support Framework should be measured in various dimensions, including:

- The Flood Support Framework as a whole
 - e.g. greater integration between provision at different stages of the flood cycle, and between providers; development of expertise among all parties; reduced flood impacts.
- Success from the point of view of affected communities and individuals
 - e.g. quicker and better recovery, and reduction of risk / increased resilience, following flooding; levels of community involvement; effective communication with relevant agencies.
- Assessing a Flood Support Service for Wales
 - e.g. specialist support provided to communities; number of individuals supported, and their satisfaction; improvement in flooding outcomes over time; Specialist

advice to Welsh Government and stakeholders; success in embedding flood-relevant work into existing Development Officer work; success in raising the profile of flood support in wider Welsh Government policy making).

Introduction

2.1 Background

This is the final report of a project investigating support needs in communities affected by flooding in Wales and how these might best be met. The project has been carried out by AD Research & Analysis Ltd, with Dr. Lorraine Whitmarsh and Dr. Catherine Butler from Cardiff University, for the Welsh Government.

The overall aim of the project was to investigate the provision of support to communities (including individuals and businesses) affected by flooding in Wales, how the available support meets their needs, and whether there is potential to better meet these needs with improved support provision. The study was prompted by a recommendation from The Sustainability Committee of the National Assembly for Wales, whose Flood Inquiry reported in February 2010 that:

“The Committee recommends that the Welsh Government, working with colleagues in the Environment Agency, and Local Authorities provides the necessary resources to establish a Welsh Flood Forum, along the lines of the Scottish model.”

The minimum requirement of this study was that it should explore and respond to that recommendation from the Committee.

This final report brings together the various strands of evidence collected by our project to address the question of how flood support for affected communities in Wales could be developed. It summarises the detailed evidence of what can make a difference to outcomes for those affected by flooding, and the implications of this for what a framework for flood support in Wales would need to comprise. The report then discusses where development of existing provision may be required, and outlines a remit for this development. Finally the report makes recommendations for how support provision could be co-ordinated by the Welsh Government, including the potential to develop a specific Flood Support Service for Wales.

2.2 Methodology

This project has been designed to generate practical recommendations grounded in the best available evidence. That evidence has been found both in published sources and through discussions and interviews with experts, practitioners, and community members. The project elements are listed here, and summarised briefly below:

- Expert advisory group
- Literature review
- Stakeholder interviews
- Community interviews
- Flood behaviours workshop (Workshop 1)
- Developing flood support services for Wales workshop (Workshop 2)
- Final report

Expert advisory group

Appropriate experts were identified by the project team from knowledge of the field and invited to join the group. Five expert advisors agreed to take part, as follows:

- Dr Tracey Coates: Kingston University
- Dr Hugh Deeming: Northumbria University
- Mary Dhonau: Flooding consultant
- Professor John Handmer: Melbourne University / RMIT
- Professor Graham Haughton: Manchester University

The expert group members have provided a wide range of inputs into the project, including identifying relevant sources of evidence for the literature review, attending the project workshops, and reviewing selected outputs.

Literature review

A call for information was circulated to around 60 experts and stakeholders, and within our project team. This resulted in over 200 sources of evidence being gathered; these were logged and assessed by the project team (with input from the expert advisers) before a final list of 45 sources was selected for detailed review. This body of evidence was then analysed against a number of research objectives set for the review, including: the impacts of flood; the factors and influences on those impacts (and on prevention/mitigation actions); elements of effective support provision; outlines of existing models of support provision.

A standalone literature review report was produced, which includes full findings, lists of references, and details of the methodology employed. That report provides the published evidence base underpinning the recommendations made in this final report. Copies of the literature review report are available on request from: floodcoastalrisk@wales.gsi.gov.uk

Stakeholder interviews

In order to establish patterns and principles of current support provision, and to identify best practice, interviews were conducted with a range of key stakeholders involved in support for communities affected by flooding. The findings are reported in a separate stakeholder interview report.

Eight semi-structured one hour interviews were conducted over the telephone; these were followed by thematic analysis of the interview notes. The following stakeholders were interviewed:

- Lyn Cadwallader, Chief Executive, One Voice Wales
- Jim Cameron, Fire Rescue Service, Strategic lead for all Wales emergency response to flooding
- Paul Cobbing, Chief Executive, National Flood Forum
- Paul Hendy, Director, Scottish Flood Forum
- Amanda Irvine, Environment Agency Wales, Flood Awareness Wales lead
- Emlyn Jones, Gwynedd Council
- Neville Rookes, Welsh Local Government Association (WLGA), Flood & Water officer

- Andrew Stone, Rhondda Cynon Taff County Borough Council

In addition to these formal interviews, discussions have also been held with the following stakeholders and experts, whose input has contributed to the study:

- Peter Bailey , Environment Agency social researcher, leading on flood social research
- Graham Hillier, Environment Agency Wales
- Keith Prosser, South Wales Local Resilience Forum
- Sue Tapsell, Head of Middlesex University Flood Hazard Research Centre
- Rhodri Thomas, Cynnal Cymru
- Sara Wynn Pari, Cynnal Cymru and Environment Wales

Community interviews

Representatives from flooded communities in Wales were identified by asking stakeholders involved in the project (e.g. who had participated in one of our delivery stakeholder interviews) and from our wider contacts in Wales, to suggest potential participants. We did not aim to gather a representative sample of voices from communities across Wales, but did attempt to achieve a spread of communities in terms of, for example:

- Experience of different types of flood support (and no experience of support).
- Different types of communities in different parts of Wales.
- Different types and severity of flooding.

Nine semi-structured telephone interviews lasting approximately one hour were conducted; and one face-to face interview with two representatives from the tenth community (at their request). The findings were anonymised, analysed, and then reported in a standalone community interviews report.

Workshop 1: Flood behaviours

The first of two project workshops was convened with Welsh Government policy makers and delivery partners. The aims of this workshop were to:

- Identify desirable actions that could make a difference to flooding outcomes: all stakeholders, all phases of the flood ‘cycle’
- Prioritise different actions; identify links and dependencies; consider who leads on delivery

Ten participants took part in the workshop, from Welsh Government, delivery partner organisations and our expert advisory group. The workshop resulted in a long list of flood actions, evidence on a range of themes and issues and refinement to the emerging study findings and conclusions. Details of the approach, participants and findings are provided in the Workshop 1: Flood behaviours report.

Workshop 2: Developing flood support services for Wales

The second workshop was convened with frontline support providers and representatives from communities in Wales with flood experience. The aims of this workshop were to:

- Identify examples of what works in supporting flood affected communities (and what doesn't)
- Develop thinking on governance and joining-up
- Consider what success might look like

23 participants took part, including representatives from Welsh Government, a wide range of stakeholder organisations, flood affected communities and our expert advisory group. Notes were taken to record discussion during the workshop and small group sessions and these were compiled and analysed, providing:

- Evidence about specific aspects of flood response and support provision, identifying issues / challenges, examples of what works and suggestions.
- Evidence about a range of key overarching issues including governance and joining-up.
- Suggestions for potential measures of success for flood support in Wales.
- Refinements to our emerging findings, through discussion.

Details of the approach, participants and findings are provided in the Workshop 2: Flood support services report

2.3 Report Structure

This final report presents recommendations for developing flood support provision in Wales. It is derived from the evidence gathered during the different stages of the project, both the published research in the literature review, and the more experiential evidence gathered through the interviews, discussions and workshops.

The final report was authored by Jake Elster Jones and Andrew Darnton; it was reviewed by Dr Lorraine Whitmarsh and Dr Catherine Butler on the project team, and by Dr Hugh Deeming of the expert group.

The report is structured as follows:

1. The Challenge

The first section of this report outlines the nature of the challenge for provision of support to flood affected individuals and communities in Wales.

2. A Framework for Flood Support in Wales

This section sets out in detail the different elements that our evidence suggests are needed to improve flood outcomes; these are divided into support tasks (for different phases of the flood cycle, for different partners to lead on), and cross-cutting themes (for all stakeholders to observe in their flood support work at all times). In identifying this ideal framework, the report highlights those aspects identified by our study that potentially require further development of existing provision.

3. Delivering the Framework

This practical section details the overall approach needed by all parties to deliver the Flood Support Framework. It then describes the co-ordinating role of the Welsh Government, before proposing the shape of an arms length FSSW. Those proposals are then broken down to provide details of remit, delivery models, and staff roles and resourcing for such a Service. The section concludes by suggesting success measures, for the Flood Support Framework as a whole, for the FSSW, as well as those measured at the level of communities themselves.

4. Next Steps

The report closes with suggested next steps for practical development following the recommendations of this report. These steps include a process through which all stakeholders can take ownership of the Flood Support Framework, and refine their own role in it.

2.4 Acknowledgements

The project team would like to thank all those listed above who have provided their expertise to this project. We are especially grateful to those community representatives and groups who have found the time to contribute to this study. Lastly, we should thank the five members of our expert advisory group, and the Welsh Government flood and coastal erosion risk management team, without whose collaboration these recommendations could not have been developed.

3. The Challenge

3.1 What can make a difference to flooding outcomes?

Our study has identified a wide range of factors and influences that can make a difference to flooding outcomes for individuals and communities. We will not rehearse these again in detail here as they are discussed in our evidence reports. However, we can summarise the range of relevant factors and influences under the following (albeit overlapping) groupings:

- Nature of the flood risk and incident – e.g. source of flooding; speed; depth of water; time occurring; etc
- Underlying factors, largely socioeconomic and demographic, that are known to have an influence on flood outcomes in a wide variety of ways and at all stages of the flood cycle
- Individual level psychological and social factors such as awareness, knowledge and attitudes
- Individual / household level actions
- Individual / household capacities
- Community level social context
- Community level capacities
- Community level collective actions
- Emergent attributes of resilience and vulnerability at individual, household, community and system levels
- Support provided to affected individuals and communities – from awareness raising, through warning systems, to emergency response and support with post-flood recovery
- Flood management actions by agencies and other bodies – such as building and maintaining defences, drainage maintenance, emergency planning
- Actions by agencies and land managers / owners that affect flood (even if flooding is not considered as part of appraisal and decision making) - e.g. land management decisions, development
- Policies and actions of private sector companies – especially insurance and building companies
- Policy and governance, including: aims, framings, frameworks, ways of working and resource allocation (including within organisations and at Welsh Government level)
- Co-ordination and collaboration between different stakeholders and between stakeholders and those affected

A key point here is that all of these factors matter and they all interact - flooding outcomes are determined by the interaction of multiple factors, and the actions of multiple actors, at multiple scales.

Some of these factors directly affect flooding – such as whether a local authority keeps a drain clear or not. Others affect outcomes indirectly – e.g. insurance company policies may affect the perception of costs and benefits of household resilience and resistance

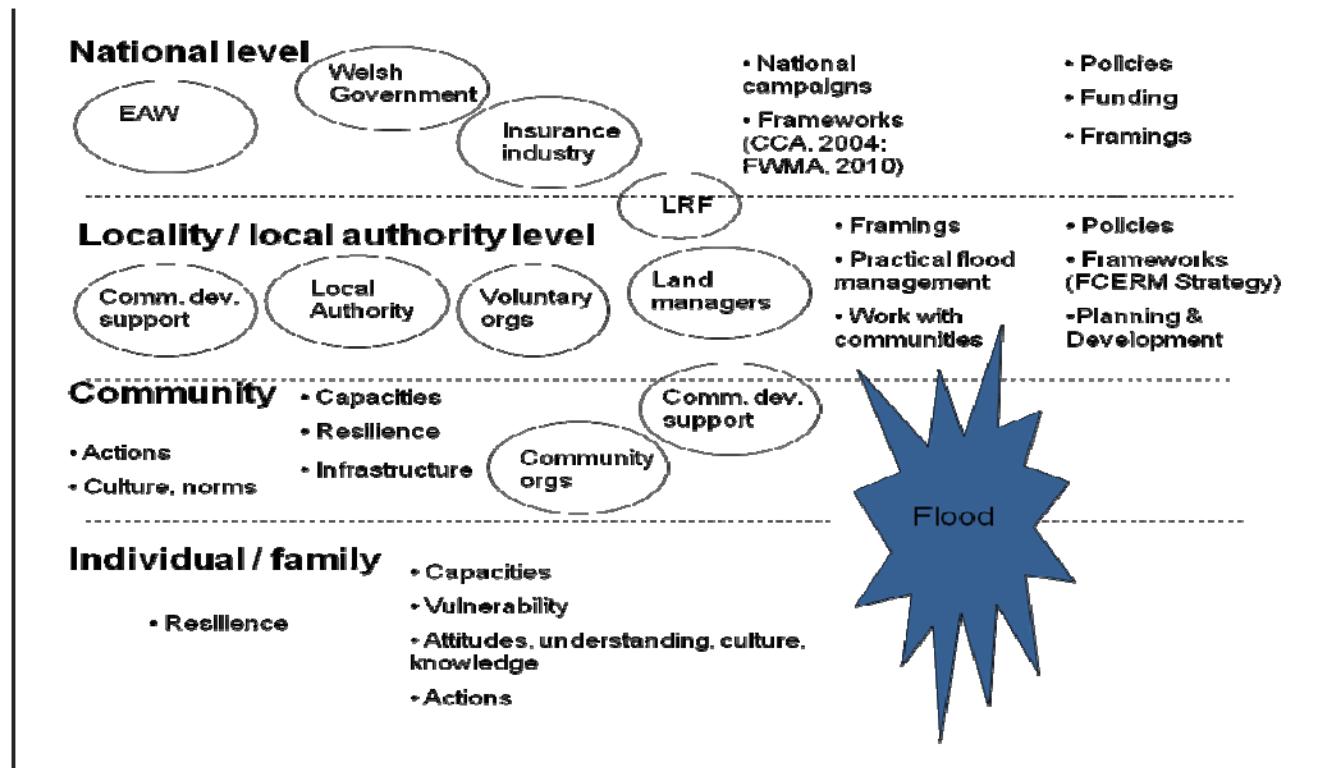
measures, affecting uptake of insurance cover and ultimately potentially affecting the amount of damage and loss a person may suffer from a flood incident.

Some factors focus on and support individual and community level action. Others influence outcomes without working directly with affected individuals and communities, such as land management for attenuation or development decisions (although some of these may also affect individual / community action indirectly).

Another dimension to consider is that some of these factors and influences are widely applicable. For example, some aspects that contribute to resilience (as discussed in Section 2 of our literature review report, and below in Section 3 here) - such as redundancy, self-organisation and two-way communication channels – can be thought of as principles that apply across the board (households, communities, agencies, whole system; providing warnings, supporting recovery, etc). In contrast, others are context specific. For example, appropriate individual and household actions can vary considerably depending on the specific local and household circumstances (e.g. type of flood risk, type of property, levels of awareness, personal characteristics).

The diagram below attempts to bring together some of this complexity, indicating the range of levels and actors, actions and factors that can interact to influence flooding outcomes. The diagram is primarily intended to represent the systemic nature of flood, whilst moving away from a perspective on support which assumes that flood will happen in all communities, and that it is therefore central to how support provision is conceived.

Figure 2: Multi-layered model of influences on flood impacts



3.2 Flooding as a sustainability challenge

The section above summarises a range of factors and influences that our evidence suggests make a difference to flooding outcomes. However, some other fundamental aspects of the challenge that flooding represents need to be considered, before we can move on to discuss how these different elements might be supported and delivered in practice. Many of these dimensions will be familiar to those working in other areas relating to sustainability; essentially, they arise from the dynamic, systemic and uncertain nature of flood. These dimensions include:

- The stochastic nature of specific flood incidents – flooding is unpredictable; impacts and needs cannot be fully predicted and planned for in advance
- The dynamic nature of needs and vulnerability
- Individual and local context and specific circumstances make a difference to needs, appropriate responses and outcomes
- Individual level psychological factors and actions are complex and themselves affected by multiple factors and influences.
- Responsibility and agency is dispersed – no one actor can address flood problems
- Flooding is often a contested area – e.g. where responsibility and agency lies; who wins and loses as a result of different decisions and responses

The sustainability-related aspects of flood set up myriad implications for flood support provision. The key points can be itemised as follows:

- It is not possible to identify a standard need, set of actions or support service that is appropriate for all communities affected by flooding – locally specific, tailored and flexible responses are required.
- At the same time certain principles and approaches can be stipulated, and need to be consistently applied and widely practised.
- A whole system perspective and approach is necessary. While at the same time acknowledging the need to attend to specific details and parts of the system (such as effective warning provision)
- The dispersal of responsibilities and agency means that collaboration is essential. No one organisation can solve the problem of flooding, nor can any combination of agencies without the involvement of those affected.
- Care needs to be taken, and assumptions critically examined, with respect to individual attitudes and behaviours. Evidence suggests that commonly held assumptions about desirable changes in awareness and attitudes can be simplistic and questionable. For example, raising awareness without consideration, or convincing evidence, of how this links with appropriate action.
- Working in partnership with those affected by flooding is essential, for a range of reasons; some, but not all, of which are identified in the National Flood and Coastal Erosion Risk Management Strategy (Welsh Government, 2011b). For example (Literature review; Interim Debrief; Welsh Government, 2011a):
 - Since flood problems, experiences and needs are locally specific (and only knowable at the local level – e.g. which drains block easily, where those with mobility problems live, etc), local knowledge and locally appropriate solutions are essential.

- Since many aspects of flooding are contested (e.g. where responsibility lies for action) the problem and solutions need co-constructing by all stakeholders including those affected.
- Since culture is an important factor in determining attitudes and responses to flooding, it is necessary to understand local cultural aspects relevant to flooding and develop culturally-appropriate solutions.
- Denial of flood risk, lack of awareness and engagement are common, and information provision alone is rarely the solution; more involved working with individuals and communities may help achieve more meaningful engagement and better understanding (e.g. participative approaches to problem and solution identification may deliver fuller engagement). It can also mean that agencies have something to offer to flood affected communities in situations where there is little other provision e.g. flood defences or flood warning systems.
- Community and individual capacity can be a significant factor in flood outcomes – important resources for mitigating and recovering from flooding can therefore already exist in communities and need to be appreciated and drawn on; working with communities can also help to develop such capacity.
- Individual and community actions can be essential in helping address flood risks (where defence is not feasible or where residual risk remains despite defence and other measures).
- Working together with those affected can help ensure a better understanding by the public of local flood risk management approaches. It can help increase local support for flood risk management approaches and increase trust between agencies and those affected by flooding.
- Related to the need for community participation in flood support provision, it is important to acknowledge and utilise existing community capacities; while at the same time accepting that external expertise, support and facilitation are likely to be needed. (The potentially complementary dichotomy between ‘top down’ interventionist approaches and ‘bottom up’ participatory ones is discussed in some more detail in the literature review report.)

3.3 Existing flood frameworks and related capacities

Section 3 of the literature review describes the frameworks that govern flooding emergency response and flood risk management in Wales (these frameworks were also identified by practitioners in our Workshop 2, ‘Developing flood support services for Wales’). These represent significant existing frameworks and capacity around which to consider any additional needs and opportunities for development suggested by this study. In summary:

- The Civil Contingency Act (CCA) (2004) and related guidance governs UK responses to risks such as flooding. It directly addresses assessment of flood risks and preparation for flood emergencies and sets out responsibilities and frameworks for co-ordination and collaboration (including the operation of Local

Resilience Forums (LRFs). Supplementary guidance also covers, in varying detail, anticipation of hazards, emergency response, and recovery following emergencies. For example, the CCA identifies responsibility for recovery of affected populations and areas following flooding, and lays out a framework to govern this process. A generic national framework also governs and co-ordinates emergency response.

- The Flood and Water Management Act (FWMA) (2010) governs flood risk management. It establishes National and Local Flood and Coastal Erosion Risk Management Strategies as the basis for flood risk management. It apportions responsibilities for managing flood risks, including: identification and assessment of risks; planning and carrying out responses; emergency response and recovery.

In addition to these two frameworks which explicitly address flooding issues, there are other existing frameworks and capacities that are worth mentioning briefly here as they also represent relevant context for the potential further development of flood support for communities in Wales. For example:

- There are a range of existing initiatives, frameworks and organisations providing a wide range of support to communities at the local level, often with an explicit capacity building or community development role. These include Local Authority community development workers, the Communities First programme, and the Welsh Government's Pathfinder programme. Meanwhile the Fire and Rescue Service carry out extensive risk reduction / prevention work with individual households and communities around Wales.
- Community groups at the local level are often actively working to address local flood problems and drawing together relevant agencies and stakeholders to help them do so (see e.g. Workshop 2 notes and Community interviews report).
- Sustainable Development policies and practice represent another significant framework which is already in place, and currently working with communities (e.g. via Cynnal Cymru, Environment Wales and diverse independent initiatives). The Welsh Government's Sustainable Development principles for policy making, listed in One Wales, One Planet (Welsh Government, 2009), chime closely with principles that our review of the evidence on flooding has identified (not surprisingly as flooding can be seen as a sustainability challenge itself). For example: Core Principle 1, of involvement; Supporting Principle 5, the proximity principle; and Supporting Principle 6, reflecting distinctiveness.

4. A Framework for Flood Support – provision and action to support improved flooding outcomes

4.1 Overview of the Framework

Elucidating a picture of necessary responses and support provision, in the complex landscape of flooding and existing provision described above, is a challenging task. It is difficult to define a fixed or universal approach given the multiple dimensions and interactions that need to be taken into account.

In order to provide a practical and recognisable framework, we begin by identifying a series of steps or tasks (listed in Table 1 below) that can be mapped onto a flood cycle or Integrated Emergency Management (IEM) cycle – broadly before, during and after a flood event. It should be noted that these tasks are not strictly sequential and many will occur in parallel. The tasks illustrate key elements of assessment and delivery, outlining an idealised framework of flood support as extrapolated from our evidence. We discuss aspects of each task that our evidence suggests may be important in determining flooding outcomes. Many of these tasks and detailed aspects will already be familiar and are covered in existing frameworks and practice. However, some will be less so and are less well addressed in existing approaches.

We also identify and discuss a number of themes which are relevant to many or all phases in the flood cycle; these relate to ways of working or general principles applicable to all support providers at all times. These cross-cutting themes are:

- x1. Working with those affected by flooding – community participation and involvement
- x2. Building capacities and resilience
- x3. Organisational aims, framings and approaches
- x4. Taking a whole system approach
- x5. Understanding and influencing individual psychological factors and behaviours
- x6. Learning, change and improvement
- x7. Joining up

In particular, the Flood Support Framework highlights aspects where the evidence suggests additional or different approaches may be fruitful, in relation to tasks and cross-cutting themes. The project scope did not include detailed analysis of existing provision and structures; we do comment on likely gaps, but detailed analysis of how the suggested elements which are needed fit within existing frameworks and provision, will need to follow.

It is vital to note that the framework we describe is designed to be additional to current practice. It is not intended to supersede existing elements of provision or existing frameworks (such as emergency response or flood risk management). Rather, we anticipate the tasks outlined as extensions of current activity, while the themes identified should be integrated into that current activity (and in cases where this proves impossible, we suggest the current activity may need to be reviewed).

It will be noticed that some of the tasks overlap strongly with the cross-cutting themes. For example, assessment, learning and improvement is a task carried out as part of the IEM cycle; and learning, change and improvement is a key cross-cutting process that

needs to be applied at all stages of work on flooding. In such cases, we present the guidance on each task at the appropriate point in the flood cycle, then provide further discussion of the approach under the subsequent section on cross-cutting themes.

In addition to these tasks and themes, our study identified a large body of detailed evidence and points about the specifics of different aspects of flood support. For example: relating to how to improve access to affordable flood insurance; how to raise awareness of and incentivise the uptake of household-level resistance and resilience measures; the provision of effective flood warning systems. All of this detail is relevant to improving flood support to communities. However, as discussed below it is also context specific, and what is appropriate in a particular time and place will need to be worked out as part of the processes described in this section. The literature review report covers much of this detail.

Table 1: Tasks in an idealised flood support framework

| | Task | Current responsibilities, actors and frameworks | Potential to develop, includes: |
|-----------------|--|--|---|
| Before flooding | 1a) Identify a flood risk or problem | Communities and individuals; FRM responsibilities; CCA responsibilities | Formal framework to bring together top down and bottom up risk and problem identification (and provide clear process for risks identified by communities to be acknowledged). |
| | 1b) Develop a shared understanding of the flood risk / problem | LRF; FWM Act duty to co-operate; Varying structures and approaches to community engagement | Greater collaborative working and participation with communities; more sophisticated understanding of community engagement / participation and available methods; building shared understanding of risks as a way to increase awareness and engagement. |
| | 2. Identify and address differential vulnerabilities | CCA responsibilities; LLFA responsibility in National FCERM Strategy | Greater collaborative working and participation with communities; addressing political aspects and framing; lobbying and representation for vulnerable individuals and communities. |
| | 3a) Identify existing capacities | LRF? | Currently overlooked: acknowledge as of core importance and develop framework for assessment. |
| | 3b) Identify existing aspects of resilience | ? | Currently overlooked: acknowledge as of core importance and develop framework for assessment. |
| | 4. Emergency planning | Category 1 responders according to CCA framework | Greater acknowledgement of role for capacities of those affected; greater joining-up with other phases in emergency cycle. |
| | 5. Planning for recovery | Local Authority - under CCA guidance and FCERM Strategy | Broader conception of recovery; explicit plans for addressing 'recovery gap' and provision of specialist knowledge and support. |
| | 6a) Identify potential risk management responses | EA, Local Authorities and others under FCERM Strategies / FWM Act; Individuals and communities | Whole system approach; aims and framings (emphasis on preventing impacts on individuals and communities – can't stop flooding, but can prevent negative impacts); involve those affected; address political dimensions. |

| | | | |
|----------------|-------------------------------------|--|---|
| | 6b) Enact risk management responses | EA, Local Authorities and others under FCERM Strategies / FWM Act; Individuals and communities | More sophisticated and critical engagement with individual psychological factors and behaviour change in order to encourage and support household level actions; hierarchy of actions - with 'upstream' first and individual / community actions to address 'residual' risk?; learning, change and improvement essential. |
| During | 7. Emergency response | CCA and National emergency response framework; Individuals and communities | Greater acknowledgement of role for capacities of those affected; user involvement and collaboration in design and operation of warning systems; more sophisticated understanding of and intervention to address factors influencing individual behaviour. |
| After flooding | 8. Support recovery | Local Authority - under CCA guidance and FCERM Strategy; Voluntary organisations; Community and individual to individual support; National Flood Forum (potentially) | Broader conception of recovery; specialist flood recovery knowledge and advice capacity available to agencies and individuals / communities; advocacy, campaigning and lobbying support for individuals / communities. |
| | 9a) Assess, learn and improve | CCA processes | Increase the importance accorded to this by all delivery partners and develop processes and techniques to support practice. |
| | 9b) Build resilience and regenerate | CCA and FWM Act processes | Broader conception of recovery process and flood support; consider resilience building to greater level than before (at all levels) as core task for all stakeholders. |

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4.2 Tasks in detail

[BEFORE Flood Event]

T1a) and b) Identify, and develop a shared understanding of, a flood risk or problem

These tasks are covered by emergency planning and flood risk management frameworks (e.g. mapping responsibilities for Environment Agency Wales and Local Authorities – as Lead Local Flood Authorities – under the Flood and Water Management Act (2010)).

However, as reported by community participants in our research (community interviews and Workshop 2 discussions), and from literature review evidence (e.g. Ryedale Flood Research Group, 2008; Environment Agency, 2005), flood problems and risks are often identified at the local level by those affected. This local flood knowledge can sometimes be at odds with ‘top down’ modelling or mapping approaches; these differences can sometimes lead to conflict, and local knowledge can sometimes be neglected, or local people can find it difficult to engage appropriate agencies with the local flood problems they experience.

Therefore, community involvement and participation in identifying flood problems and risks will be important and mechanisms to facilitate and enable this will be necessary. At the same time, ‘top down’ approaches will remain essential and need to be optimised, for example in areas where flooding has not occurred for a long time and there are no obvious sources of flood risk, leading to local people having no awareness that they are at risk (see also cross-cutting theme x1).

Since flooding is a problem that necessitates collaboration between multiple actors, it will be important that these actors develop a shared understanding of the problem or risk. Co-ordinated responses necessitate all those involved agreeing on, and having a shared understanding of, what it is they are trying to address, and how each fits into the process of trying to do so.

Additionally, as discussed above, lay and expert assessments of flood risk may vary, but both are valid and important. This is illustrated by the example of flood risk mapping, which can pick up risks where local people are unaware that they exist, but equally can overlook risk where local people accurately know it does exist. In practice local lay and national expert, understandings of risk should be seen to complement each other and the process of developing a shared understanding will allow this synergy to emerge.

Raising awareness of risk can be achieved as part of this task: if the people and communities affected by flooding are involved in developing a shared understanding of the risks and problems they face this can help increase levels of awareness and acceptance of risks and willingness to engage with responses. Continued disengagement, or disagreement as to the nature or existence of risks, is likely to constrain the options for responses to risks (e.g. making active engagement of households in mitigating actions very unlikely).

The extent to which engagement, participation and the development of shared understandings is possible, or appropriate, will depend on local circumstances (as discussed under cross-cutting theme x1). However, in cases where people are sceptical or disengaged the development of shared understandings may be one of the most promising ways of achieving engagement.

Existing frameworks do address this challenge to some extent. For example, the FWMA (2010) imposes a duty on key agencies to co-operate with each other in addressing flood risk management. The CCA (2004) requires all of those organisations involved in emergency planning and response to come together via Local Resilience Forums (LRFs), which structure co-ordination and co-operation. Welsh Government guidance on Local FCERM Strategies (Welsh Government, 2011a) states that these are expected to enable the involvement of affected people, communities and businesses in developing a clear understanding of flood risks. It also identifies collaboration as an integral part of managing flood risk, and stronger links with local community groups as a way of enabling local expertise to assist in identifying risks (and responding to them). A prime mechanism to support community engagement is identified as the Welsh Government's Flood Risk Management Community Engagement Toolkit (AECOM, 2011). We discuss the cross-cutting theme of engaging and involving affected individuals and communities in more detail below and identify a number of areas for potential development emerging from our evidence.

T2. Identify and address differential vulnerabilities

As part of the task of identifying and assessing flood risks and problems, it will be necessary to identify individuals and groups that are especially vulnerable to the negative impacts of flooding.

There appears to be only minor reference to the detail of this task in the national FCERM Strategy for Wales or guidance on local FCERM Strategies (Welsh Government 2011a; Welsh Government 2011b).

The evidence in the literature review report provides more detail on approaches to identifying and addressing differential vulnerability to flood impacts. Community involvement and dialogue is again seen to be central (as vulnerabilities are likely to be better understood by those who are affected).

Socio-economic and demographic groupings that are often taken as proxies for differential vulnerability are shown to be important starting points and where possible addressing these underlying factors (also listed in the literature review) can be part of the task of addressing differential vulnerability as they can have wide reaching consequences for both vulnerability and flood outcomes.

However, such broad groupings are ultimately too blunt and impractical as a basis for identifying specific individuals and groups who are most vulnerable. For example elderly residents are not automatically more vulnerable: loss of mobility can make them more so; greater life experience and local knowledge

can make them less so. Instead, the specific basis for vulnerabilities needs to be assessed; approaches like Buckle's (1998) meta-categories of vulnerability (listed in our literature review) could be applied. Local residents can also help here by identifying very specifically vulnerable groups and individuals within their community.

Political dimensions need consideration as different ways of framing flooding problems, and decisions about different responses, can have differential impacts, benefiting some but increasing impacts for others (see discussion under cross-cutting theme x1). Advocacy support may help address imbalances of power and representation.

T3a) and b) Identify existing capacities and other aspects contributing to resilience

The evidence suggests that individual and community capacities and other attributes that confer resilience can be very important in determining flooding outcomes. These capacities can be both flood-specific (e.g. knowledge of property-level resistance and resilience measures) and generic (e.g. social capital). It will therefore be important to assess existing capacities and other aspects of resilience in a given community as part of the process of addressing flood problems and providing support.

The literature review report provides detail on the capacities and other aspects that are likely to confer resilience for individuals, communities and other levels in the system. A list of these is provided under cross-cutting theme x2, which also provides more detailed discussion about these important aspects.

T4. Emergency planning

This is an area very well covered by the CCA (2004) and associated frameworks. Potential additional points from our evidence are:

- The need to make sure emergency planning and response are well joined-up with other phases in the emergency cycle, e.g. work to reduce risk, support recovery and ensure resilience is improved following flooding.
- The need to acknowledge the importance of individual and community capacities in contributing to emergency responses.

T5. Planning for recovery

Our evidence suggests that recovery following flooding can be a very significant aspect in terms of outcomes and impacts for those affected. In particular the academic evidence identifies the 'recovery gap' which refers to the stage in recovery when public sector support is waning and private sector provision comes to the fore (particularly insurance companies and builders)(e.g. Deeming et al., 2011). Some of the more severe psychological impacts of flooding on individuals can arise at this stage.

As a result, this aspect of flood support needs significant attention and the evidence we reviewed suggests that recovery planning and support needs to be accorded equivalent importance to emergency planning and response. Importantly, in planning and delivering support, recovery should be seen as a

first stage in the iterative process of increasing resilience, rather than as an end point.

Task T8 below provides more detailed discussion of recovery following flooding and the issues discussed there need to be considered as part of the process of planning for recovery.

T6a) and b) Identify and enact risk management responses

The identification of responses to help manage, reduce or mitigate flood risk and how these are put into practice are core concerns in the evidence reviewed and in existing policy, frameworks and practice.

For example, the FWMA (2010) and national and local FCERM Strategies attribute responsibilities for the management of all types of flood risk and identify the range of relevant measures that should be employed in doing so.

Many of the points made under the discussion of other tasks and many of the cross-cutting themes are relevant to this task, including:

- Those affected by flood risks and flooding should ideally be involved in identifying locally appropriate responses to manage and reduce risks, with the need to consider the extent to which this will be possible or appropriate.
- Political dimensions relating to the identification of responses and decisions about action need to be considered and practically addressed. For example, dominant framings of flood problems, or specific methods of appraisal such as cost-benefit analysis, can exclude valid options and ideas and can disadvantage certain groups (one example being that traditional, purely economic, cost-benefit analysis can lead to more affluent areas with more valuable property receiving more flood defence investment).
- Aims, framings and assumptions of delivery partners leading the process of flood risk management, e.g. whether 'preventing flooding' is an aim (see also cross-cutting theme x3).
- The need to take a whole system approach to identify all factors that can make a difference to specific flood problems (e.g. upstream land management may prove a cost-effective way of addressing a problem) (see cross-cutting theme x4).
- Understanding and influencing individual behaviour will be very important in supporting and encouraging household level actions that can play an essential role in flood risk management responses (see cross-cutting theme x5).
- Learning, change and improvement will be essential due to the unpredictable and dynamic nature of flooding and flood risk. As with all complex sustainability challenges, we cannot know in advance exactly what will and will not work in addressing any given flooding problem in a specific local context. Responding to flood risks will therefore require flexible approaches that incorporate and develop in response to learning (see cross-cutting theme x6).

[DURING Flood Event]

T7. Emergency response

As discussed above, this is a task very well covered by existing frameworks, including a generic national framework that governs and co-ordinates responses to emergencies.

Flood warnings are an important part of emergency response; evidence from this study suggests some potential areas for development, including:

- A more in-depth and critical approach to understanding individual psychological influences and behaviours may help develop work on ensuring use of, and appropriate responses to, flood warnings (see also cross-cutting theme x5). For example factors affecting response to flood warnings can include: individual perceptions of flood risk and personal vulnerability; people's priorities, and conflicting priorities (such as establishing the whereabouts of family members); additional information and signals which can sometimes provide contradictory information (such as the behaviour of neighbours, the weather, and informal information via personal networks).
- The role for involvement of those using warning systems, with for example: flood warnings found to be most effective when developed in collaboration with users; and the need for local capacity to interpret warnings and take appropriate action.

Community and individual actions can play an important part in emergency response (for example, people helping each other, checking neighbours or informing emergency services about vulnerable individuals). Supporting communities and individuals to become more empowered to respond themselves to flooding should play a part in the development of flood support and will help increase agency for those affected. As an example of how this support could be provided, some UK local authorities have been implementing approaches similar to the US model of Community Emergency Response Teams (CERTs), which involves providing training to community members to support more effective community emergency response (Dr. Deeming, pers comm.; see also: www.citizencorps.gov/cert/, accessed 070912).

[AFTER Flood Event]

T8. Support recovery

Recovery is not directly covered by the CCA (2004) but the importance of this stage is reflected in significant accompanying guidance, including the UK Government's National Recovery Guidance (NRG) and other supplementary guidance to the CCA (2004). For example, NRG principles (listed in CCA Response and Recovery guidance, HM Government, 2009) establish that recovery following emergencies is a complex, dynamic and protracted process. Effective support during this process is considered to involve enabling affected individuals and communities to manage their own recovery, with the active participation of those affected and strong reliance on local capacities and expertise. Recovery is thus considered to be best approached from a community development perspective, while acknowledging the need for provision of information, specialist services and resources (*ibid*).

Responsibility for recovery following flooding is attributed to Local Authorities (as Lead Local Flood Authorities in Wales), but very little detail is given about this task in the FWMA (2010) or FCERM Strategies. For example, the National FCERM Strategy for Wales sub-objective 9, relates to facilitating recovery from flooding, but only lists measures relating to clearance of debris, investigating causes of flooding and development of repair schedules and installation of 'resilient measures' (Welsh Government 2011b: 32). This lack of detail, and limited conception of recovery, in flood-specific legislation suggests scope for development and greater joining-up with other tasks and stages.

The definition, and conception, of the process of recovery need to be reviewed to ensure that they reflect the long-term nature of the task from the perspective of those affected. There is a need to address explicitly how people will be supported through the part of the process where public services are less involved and the private sector (principally insurance companies and builders) moves to the fore (the 'recovery gap' discussed above and in our literature review). Specialist flood recovery expertise, knowledge and support will be needed – both to provide advice and training to those involved in supporting recovery (such as front line workers, local authority and agency staff); and to support the individuals and communities affected. The Scottish Flood Forum model illustrates the types of support that can be essential to any community recovering from flooding, which includes: advocacy and advice for individuals; mediation; property visits and assessment of repair work; training for agency and other front line workers; co-ordination of voluntary sector support.

There may be opportunities to link to local economic development here, if local businesses and builders are trained and accredited to carry out good quality, sensitive repair work, providing increased resilience (Dr. Butler, pers comm.).

T9a) and b) Assess, learn and improve (including via regeneration and resilience building)

All aspects of responses to flooding (including flood risk management and emergency response and recovery) will require assessment and this should result in learning followed by improvement. For example, one aspect of the process of recovery following flooding should be to consider opportunities for regeneration and improved resilience, rather than just repair and restoration to a previous state (with a potential reproduction of vulnerability). Aspects of differential vulnerability can also be addressed in this way by identifying ways to address factors that underpin inequity.

More detail on learning and change is discussed under cross-cutting theme x6.

4.3 Cross-cutting themes

x1. Working with those affected by flooding – community participation and involvement

The extent to which engagement, participation and the development of shared understandings is possible, realistic or appropriate, will depend on local and individual circumstances. For example, in areas with no history of flooding and very sceptical populations, it is likely to remain difficult to engage people (and this may not be the best way of achieving desired goals, as discussed below). ‘Top down’ interventionist approaches will therefore always remain relevant in some situations and it may make sense to consider that a range of approaches will be necessary, from the ‘ideal’ of full, broad participation by those affected in an area, to a predominantly agency-driven approach, where little or no community engagement or participation is possible (but where work is ongoing to build this aspect over time, starting with the most engaged individuals or groups). In communities where engagement is difficult, flood awareness and preparedness could be presented as part of wider work on increasing quality of life and building stronger communities.

Early work with those affected (at the stage of identifying risks) should indicate what level of engagement and involvement will be possible at the stage of identifying and enacting responses. It will also provide an opportunity to begin to build engagement and create more interest that could increase the levels of participation at later stages.

A point that follows here is that it may be necessary to question some assumptions underlying existing approaches to engaging those affected by flooding. For example, sub-objective 5 in the National FCERM Strategy for Wales is that ‘everyone who lives in a flood risk area understands the flood risk they are subject to, the consequences of this risk and how to live with that risk’ (Welsh Government 2011b:28). Our evidence suggests that this may not be appropriate or realistic in some circumstances. For example, if individuals remain unconvinced that they face a flood risk or that they are personally vulnerable, they are very unlikely to engage with developing their understanding of how to live with the (perceived non-existent) risk. One response to this point could be to focus on raising awareness so that these people become convinced. However, evidence reported in the literature review indicates that doing so is far from straightforward, with flood awareness being influenced by multiple interacting factors including: flood experience; social class; social networks; social values; emotions; and conflicting personal needs (such as emotional security and protecting property values).

Even where significant participation and engagement are achieved, the role of external facilitation and expertise to support this will usually remain important. This could include: the need for technical expertise and advice to help members of affected populations work with complex technical modelling or other specialist aspects; facilitation support for the process of collaboration and conflict resolution; expertise in engaging and empathising with disengaged individuals and communities; advocacy support to help empower and give a stronger voice to individuals and communities; and more general capacity

building. There is a need here for specialist flood expertise, but also a clear role for those who work with communities in a non-flooding capacity (such as community development workers). Non-flood community development and support mechanisms and workers can help embed aspects of flood preparedness in other (non-flood-focused) work with communities; as well as support communities in engaging with and addressing flood problems. Making the links with non-flood focused delivery and issues could help with the task of 'normalising' flooding.

Engaging and involving affected people necessitates a consideration of political aspects and empowerment. Thus, as discussed elsewhere, aspects such as: the ways flooding problems are framed; aims, processes and evidence used in decision-making; differential empowerment, capacities and agency, will all affect decisions made about managing flood risks. Making these aspects of problem appraisal and response more explicit will be important in making participation work and can help delivery partners better address inequalities and differential vulnerabilities. Methods like Leach et al.'s (2012) '3D' analysis (from work on managing for sustainability) are designed to provide practical ways of: factoring in explicit consideration of different framings and goals; encouraging diverse viewpoints and solutions; considering who gains and who loses from different decisions and ways of looking at the problem. Another important element here will be representation, facilitation and advocacy, to support those who may have weaker voices or lack capacities or power.

Our evidence suggests that there are some additional dimensions to the task of engaging and involving affected people and communities beyond those addressed in existing approaches. The Welsh Government's Flood Risk Management Community Engagement Toolkit (AECOM, 2011) reviews approaches already being taken to engaging communities around flooding in Wales and does not take a broader view of the range of potential approaches and best practice in the wider field of community engagement (a very broad and mature field with significant potential for application to flooding). There is likely to be scope to develop assumptions, clarity and approaches around community engagement with flooding, drawing on work in other fields.

x2. Building capacities and resilience

The evidence suggests that individual and community capacities and other attributes that confer resilience can be very important in determining flooding outcomes. Our literature review provides detail on the capacities and other aspects that are likely to confer resilience for individuals, communities and other levels in the system. In summary, the range of capacities suggested by the evidence as important include:

- Resource availability / economic capacity – availability of financial resources; and the capacity to distribute these post-disaster.
- Management or procedural capacity / 'community competence' – capacity to deal with own affairs, meet ones own needs, and elicit and apply other capacities; capacity to develop efficacy and empowerment; capacity for collective action and decision making.

- Knowledge capacities – different expectations of help / knowledge of underlying informal values, norms and beliefs; knowledge about formal institutions.
- Network capacities / social capital – possession and exploitation of social capital; and possession or development of ability to establish and sustain relationships between different actors and organisations.
- Motivational capacities, including: motivation to prepare for, cope with and recover from negative impacts; building a sense of responsibility for own actions and those of other actors.
- Institutional capacities, including: principles of fair governance; consideration of a variety of problem frames and multiple perspectives and levels.
- Information and communication capacities, including: the need for systems and infrastructure for information exchange; and shared meaning and purpose.

Key aspects that are identified in the literature as helping to confer resilience include:

- Diversity
- Redundancy or modularity
- Processes
 - Feedback
 - Self-organisation
 - Learning
- Relationships
 - Networks
 - Communication, especially two-way.

Resilience is briefly mentioned in Welsh Government guidance on local FCERM Strategies and the national Strategy, however this is narrowly construed (e.g. see definition in the national Strategy document versus discussion in our literature review), seeming to focus mainly on property level resilience measures, which refer to physical measures to make drying and restoration of properties easier following flooding (clearly very different to the broader meaning that we discuss in our literature review) (Welsh Government, 2011a).

Resilience is addressed in much more detail at the UK and Wales level as part of government work on civil contingencies and risk management. However, even this resource appears to go only some way to covering the ground identified as relevant to increasing resilience in our literature review (e.g. see Wales Resilience website page on flooding¹). For example, standard definitions of resilience neglect certain aspects, such as the ability to achieve positive improvement through learning (see also literature review report).

A distinction can be made between general resilience and specific resilience (specific to a certain type of disturbance to a system). Thus, as can be seen from the above list, relevant capacities and other aspects of resilience are

¹ <http://walesresilience.gov.uk/risksinwales/flooding/?lang=en> accessed 12/08/12.

often non-flood specific, such as networks, ability to self-organise and the capacity for collective action and decision making. However, resilience to flooding does also involve flood-specific capacities and other aspects, such as: knowledge and understanding of flood risks and appropriate responses; and two-way communication channels with relevant agencies.

Other key observations include:

- Capacities and resilience can be developed and this can take place at any stage in the flooding cycle.
- Capacities and resilience can be developed as a result of other flood risk management work, such as participatory approaches to identifying problems and solutions.
- Capacity building work and other community development and support work will influence capacities and other aspects of resilience relevant to flooding, even where this work is non-flood specific, as in the case of diverse strands of work already taking place in communities across Wales.

Following from this, we suggest that building capacities and other aspects that can confer resilience – both general and flood-specific aspects - should be a much stronger focus of flood support in Wales. General resilience building can be linked to a wide range of existing provision including community development work, economic development and regeneration and sustainable development work. Specialist flood expertise could support these non-flood focused strands of work, by providing specific information and knowledge about additional flood specific aspects of capacity and resilience building.

Work to build capacities and resilience could potentially take precedence in areas where people remain sceptical and unengaged about flood risk (e.g. where there has been no recent history of flooding). General capacity and resilience building can contribute to a wide range of community goals and so can be delivered as part of work on local priorities other than flooding. Flood-specific capacities and resilience could then potentially be added as part of work to increase engagement and involvement with flood issues, alongside other work such as involvement of residents in developing a shared understanding of flood risks.

Conversely, in areas where flood risk is high priority, capacity and resilience building work focused on flooding will also be relevant to other local issues.

Resilience also needs to be considered at other levels in the system. More long-term, fundamental, factors can confer resilience on the whole system and hence help reduce impacts for individuals and communities. For example, the extent to which development in flood risk areas incorporates Sustainable Urban Drainage Systems (SuDS) or requires resistance and resilience measures to be designed into all new buildings will have an overarching influence on overall flood impacts across the system in question. Similarly, the extent to which catchment land use and management is designed to attenuate flood risk can be another factor influencing system-level resilience.

x3. Organisational aims, framings and approaches

Aims and framings (including starting points and assumptions) of stakeholder organisations will be important, as discussed in the literature review. A key point emerging from the evidence from affected individuals relates to the way in which the overall challenge of flood risk management is approached.

A prominent strand in the flood risk management literature frames flooding as a natural phenomenon that cannot be prevented – water will flow over a landscape when there is ‘too much’ of it and defence will not always (and to a lesser and lesser extent) be possible; hence all those affected need to take responsibility for trying to reduce the negative impacts they suffer from inevitable flooding. A contrasting view was offered by community participants in our research: namely, that flood (defined as water entering people’s property) can be prevented given the necessary engagement of and action by agencies. Both of these positions are ‘true’ and reasonable – flood (in terms of water flowing over a landscape) often cannot be stopped; yet flood (in terms of water causing damage to people’s homes at a specific local scale) often can be prevented (e.g. by better planning decisions, better drainage, etc). The tension can partly be explained by difference in scale – for local/national institutions flood will affect their area somewhere; for householders, flood/rain waters can be diverted elsewhere, leaving their properties dry.

Clarity is needed here and it may be productive to consider how this starting point is presented in government policy and guidance. Provision should bear these two perspectives in mind simultaneously, but not confuse messages between the two (for example, communities could easily become disempowered or non-compliant if told their homes will inevitably flood). One idea could be to define a hierarchical aim with preventing impacts for individuals as the prime objective, followed by reducing impacts, and all within the acknowledged context of flood risk that cannot be eliminated. An existing framework that could potentially help in clarifying the different perspectives here could be the ‘Source-Pathway-Receptor-Consequence’ model (see e.g. www.floodsite.net/html/faq2.htm, accessed 070912). Again, the development of shared understandings, through dialogue with those affected, is likely to play important roles in addressing this potential clash.

Other aspects relating to organisational aims, framings and approaches are discussed in our literature review report, including the related aspects of: political commitment; organisational approaches, capacities and institutional processes; government taking a lead and setting standards for other stakeholders (including those in the private sector); and the development of an ethic of care by all those involved with communities affected by flooding (including private sector companies).

x4. Taking a whole system approach

Another aspect emerging as important from the evidence is the need to take a whole system approach in appraising and developing responses to flood problems. Aspects of this need are evident in existing approaches (e.g. measures identified in the National FCERM Strategy; and the Pwllheli pilot reported in our literature review (Gwynedd Consultancy, 2012)).

However, our evidence suggests that a broader approach may be productive. For example, system level effects identified in the literature we reviewed included: the moral hazard effect of our insurance system (which needs to be considered in balance with the important role that insurance plays in distributing flood risks in our society); the effect of planning and development policies and decisions; the influence of land management and land use within catchments (that can often be linked to decisions, and whole frameworks, that may not take flood implications into account); the way in which attempts to control flood problems in one place or at one time can displace problems (system feedback) to other places and times (e.g. flood defence in one place can exacerbate flooding elsewhere; and successful flood management could potentially displace the problem into the future as demonstrated by the Pwllheli pilot case study).

Not only do these different system level effects need to be addressed in the process of flood risk appraisal and management, but some also imply the need for society level debate and deliberation. For example, what priority is given to flood attenuation in land management decisions, and how do we address the moral hazard effect of flood insurance provision? They also link to, or are directly part of, other society level sustainability challenges that are actively being debated and addressed, such as climate change adaptation (increased flood risk being one of the prime predicted impacts from climate change).

x5. Understanding and influencing individual psychological factors and behaviours

Individual and community actions are likely to play a part in many approaches to responding to flood risk (as part of a mixture of approaches to respond to ‘residual’ flood risk that cannot be eliminated). As discussed in our literature review this involves a complex mix of factors, including: individual psychological factors such as levels of awareness and different perceptions (e.g. of personal vulnerability, responsibility and agency); ‘contextual’ factors such as information provision, cost-benefit calculations and communications campaigns.

The evidence suggests that more sophisticated and critical approaches to understanding and influencing individual attitudes and behaviours are possible and may be required: for example, re-examining the assumptions that lie behind awareness-raising targets and programmes, and the way in which these may or may not lead to desirable behaviour changes. Extensive work has been carried out in different fields on furthering our understanding of individual and communal behaviours and on developing ways of operationalising behaviour change theory in policy-making and practice. Our study strongly suggests that little of this has so far been transferred to work on flooding and that there is scope to develop more theoretically grounded and productive approaches.

The ultimate aim of this activity should be that individuals recognise greater responsibility and a sense of agency, and take action accordingly – rather than relying on external agencies and organisations.

x6. Learning, change and improvement

Learning and improvement is addressed in CCA guidance. However, our evidence suggests that learning should be given a more central role in all aspects of flood support work. As discussed above, learning is an essential component of approaches to any complex sustainability problem. It is also a key component that helps confer resilience, facilitating flexibility and self-organisation in the face of complex, dynamic challenges like flooding and flood recovery. Organisational change theory teaches that learning and change are intertwined (e.g. Schein, 2004). Without learning throughout the process of support it will be impossible for communities and stakeholders to respond differently next time.

Improvement is also a central component in theories of resilience: part of the definition of resilience, discussed in the literature review report, being the ability not just to adapt, but to do so in a way that achieves positive benefits.

Approaches such as adaptive management (discussed in our literature review) may provide potentially useful practical methods to address this need for learning and positive adaptation. Adaptive management is an approach (developed in the sustainability field) specifically designed to provide a framework and method that allows managers to proceed without complete information, and to progress iteratively by learning.

x7. Joining up

A strong theme that emerged in Workshop 2 (and also in stakeholder interviews) was that of joining-up.

Co-ordination and collaboration are addressed in both flood risk management and civil contingencies policy, guidance and practice. However, remaining issues and areas for development were suggested by study participants.

Firstly, joining up between work at different phases of the IEM or flood cycle was considered often to need further improvement, with action focused on prevention, preparedness, response and recovery often not well integrated. This is exacerbated by a historical legacy of different organisations having responsibility for different types of flooding and different aspects of the IEM cycle. Work is ongoing to address these issues, but there appears to still be room for improvement.

The idea of a wrap-around framework of support following/anticipating the flood cycle is critical. In practical terms stakeholders should think about continuities and transitions between the support activities they provide in order that communities experience a continuous cycle of support and improvement.

Joining up between levels is another challenge that emerged strongly from Workshop 2 and which perhaps receives less attention in policy and guidance. Thus a number of community representatives reported significant difficulty in engaging agencies and existing structures and processes with very localised flood problems that they were experiencing, despite considerable efforts to do

so. It appears that there may be room for improvement in the way that existing structures and processes at the agency / local authority / LRF level join up with the very specific local problems that communities are experiencing. This again, clearly, links to issues of community engagement, involvement and routes for two-way communication and dialogue. Thus, effective, easy, access for communities to the relevant agencies/ managers should be an important aspect of flood support; facilitating information flow and the employment of multiple perspectives and capacities in addressing flooding.

5. Developing Flood Support in Wales

5.1 Delivering the Framework

Section 3 sets out an overarching framework for the development of flood support in Wales. This section details the proposed approach for delivering this Flood Support Framework.

In summary, the tasks and themes specified in the Framework are:

Tasks across the Flood Support Cycle

- T1 a) Identify a flood risk or problem
- T1 b) Develop a shared understanding of the flood risk / problem
- T2. Identify and address differential vulnerabilities
- T3 a) Identify existing capacities
- T3 b) Identify existing aspects of resilience
- T4. Emergency planning
- T5. Planning for recovery
- T6 a) Identify potential risk management responses
- T6 b) Enact risk management responses
- T7. Emergency response
- T8. Support recovery
- T9 a) Assess, learn and improve
- T9 b) Build resilience and regenerate

Cross-cutting Themes

- x1. Working with those affected by flooding – community participation and involvement
- x2. Building capacities and resilience
- x3. Organisational aims, framing and approaches
- x4. Taking a whole system approach
- x5. Understanding and influencing individual psychological factors and behaviours
- x6. Learning, change and improvement
- x7. Joining up

We propose that the Welsh Government should have ultimate responsibility for ensuring the integrated delivery of this Flood Support Framework. Specific tasks will fall to different delivery partners (subject to their refinements and agreement); ultimate responsibility for the cross-cutting themes and success measures should rest with Welsh Government alone.

Following on from the aspects of these tasks and themes identified as needing development, we propose that effective delivery of the Flood Support Framework will require Welsh Government to possess the following attributes:

- Flood expertise, and the ability to develop expertise (including by commissioning or carrying out research and development)

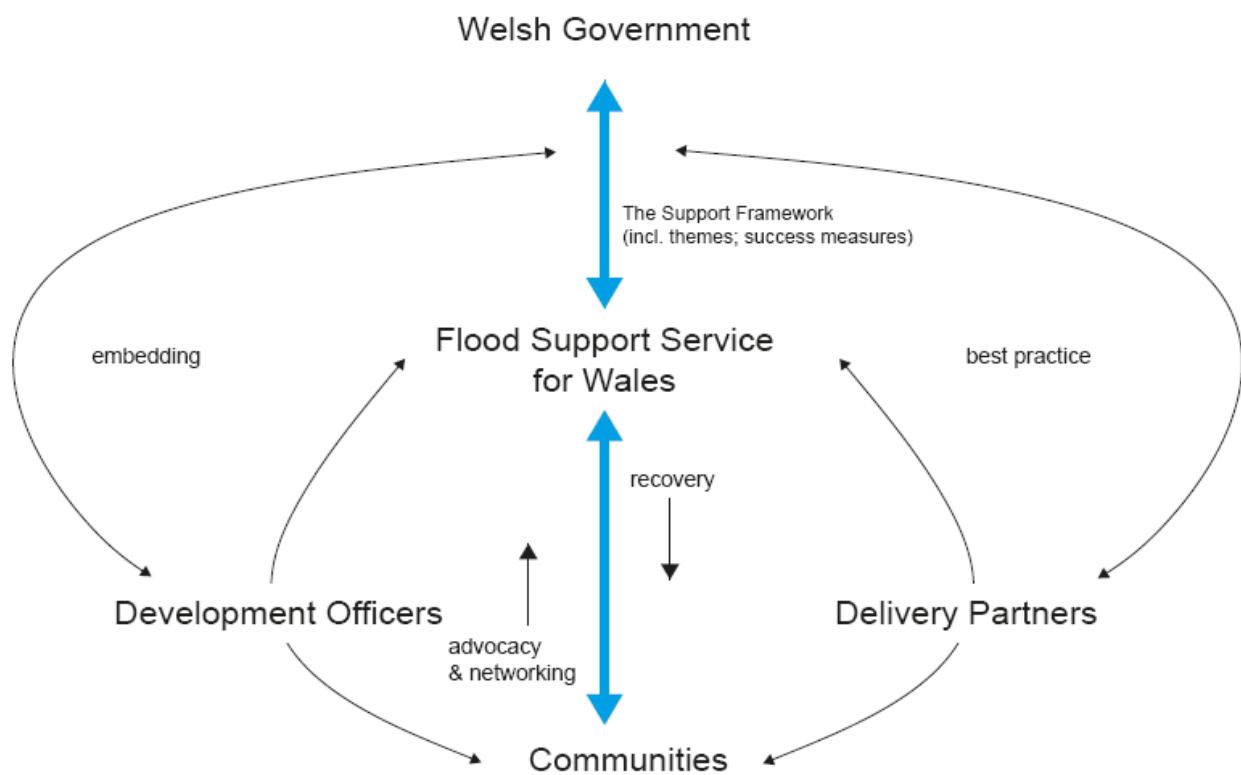
- A public facing capacity, with the ability to meet flood affected communities ‘half-way’ – i.e. meeting the needs of communities, such as hands-on practical support and advocacy; supporting communities to take action themselves and effectively engage in flood risk management frameworks; and feeding the needs and voice of communities back up to senior policy makers and other stakeholders.
- Close involvement with, and influence over, multiple stakeholders, at the strategic and practice levels.
- Capacity to provide hands-on advice, expertise and training to stakeholders.
- Ability to work across and integrate all stages of the flood cycle, to generate an ongoing process of learning and improvement.
- A role in, or links with, national level debates and deliberation.

In order to fulfil all these characteristics, we propose that the Welsh Government Flood and Coastal Erosion Risk Management team set up a dedicated and arms length Flood Support Service for Wales (FSSW), and alongside that Service, work closely with delivery partners, community development officers, and communities themselves to deliver the Flood Support Framework of support provision outlined above.

5.2 Delivery roles

This section lays out complementary roles for Welsh Government and other bodies identified as playing a role in the effective delivery of the Flood Support Framework. The relationships between the providers are summarised in the figure below:

Figure 1: Delivery model for a Flood Support Framework for Wales



Welsh Government

- Overall responsibility for the Flood Support Framework for Wales described above.
- Ensuring cross-cutting themes are embedded in all aspects of delivery by all delivery partners and stakeholders (including in the private sector).
- Determining success measures and ensuring these are delivered on.
- Ensuring learning and improvement is built into the Flood Support Framework.
- Leading on development of expertise and knowledge, involving gathering and disseminating best practice, in collaboration with the FSSW. Also local training and development for flood related business (e.g. household level resistance and resilience assessment and installation).
- Integrating the Flood Support Framework into other flood and SD-related policy and strategy positions.
- Ensuring key flood issues are addressed in national level debates and deliberation.
- Ensuring policy colleagues in other parts of Welsh Government understand the relevance of their work to flooding (and vice versa), and are receptive to embedding flood support within their delivery frameworks (e.g. via development officers, as below).

Communities (including formal and informal community organisations – flood action groups, community councils etc. – and individual community members)

- Providing local knowledge and expertise to delivery partners and Welsh Government (e.g. on flood problems, maintenance issues, vulnerable groups and individuals, satisfaction with flood support delivery).
- Supporting householders and local businesses and helping deliver responses to flood risks locally.
- Engaging with appraisal and response to flood risks (as appropriate).

Development Officers

Development Officers include all front line workers and organisations delivering support to individuals and communities in Wales, such as Local Authority community development workers, Pathfinder Officers, and grant-making Development Officers. Note that given the vital role identified for Development Officers, it will be essential to ensure there is sufficient Development Officer capacity to undertake flood preparedness and support work across Wales for a number of years. In turn this may mean funding additional Development Officer capacity – although these should not be dedicated ‘flood officers’, but officers for whom flood is one part of a wider community development and sustainability remit. Their flood-related roles should include:

- Embedding general and flood-specific capacity and resilience building into their work with individuals and communities.
- Helping to normalise flood preparedness in communities by linking to work in other areas (e.g. adaptation, resilience) and general capacity building with multiple community benefits.

- Identifying local flood issues and helping signpost communities to appropriate support.
- Supporting the development of local flood groups where appropriate (with FSSW expert input).
- Facilitating community participation in flood risk management and emergency planning, response and recovery.

Delivery Partners

(including those agencies and organisations already involved in flood risk management and emergency planning, response and recovery)

- Taking ownership of (and refining) tasks within the Flood Support Framework, as appropriate.
- Ensuring cross-cutting themes identified in the Flood Support Framework are integrated into their existing activity.
- Working with communities as appropriate, and alongside FSSW, to deliver flood risk management and emergency planning, response and recovery.
- Playing a role in developing expertise and knowledge, co-ordinated by Welsh Government (e.g. EA Wales' ongoing work to develop behaviour change capacity).
- Prioritising learning and improvement within organisation, and gathering/disseminating best practice with FSSW / Welsh Government.

5.3 A Flood Support Service for Wales (FSSW)

As stated at the outset of this report, this research project arose from Recommendation 8 of the National Assembly for Wales Sustainability Committee's 2010 inquiry into flooding in Wales:

"The Committee recommends that the Welsh Government, working with colleagues in the Environment Agency, and Local Authorities provides the necessary resources to establish a Welsh Flood Forum, along the lines of the Scottish model."

Our evidence supports the case for the establishment of a specific flood support organisation for Wales, because it meets the clear need for:

- Expertise in the experiences and needs of flood affected communities, and the provision of detailed hands-on support and advocacy to flood affected individuals and communities.
- An arms-length body that is able to advocate for communities affected by flooding and to provide hands-on support for these communities.
- A body that can be trusted by communities. Blame and mistrust can be common following flooding and agencies involved in flood risk management can often bear the brunt of this, making it harder for them to engage successfully with or support affected communities.
- Better joining-up between the local community level and agencies/policy makers. For example providing: objective representation of flood affected communities in flood risk management governance and frameworks; and a mechanism for information flow between communities, Welsh Government and delivery partners.

We discuss the remit of such a service in Wales below and following this outline the ways in which this does and does not follow the model of the Scottish Flood Forum.

FSSW Remit

As shown in Figure 1 above, a Flood Support Service for Wales would need to focus in two directions at once: facing the Welsh Government, and facing flood affected communities. In this way it would be designed to be a resource for Welsh Government, while also meeting communities' needs. In order to do the latter, it would also interface with delivery partners and Development Officers (through which it would be providing additional expertise to communities).

The following section proposes a remit for FSSW, organised according to these four relationships.

For Welsh Government:

- Responsible for delivering parts of the flood support framework.
- Providing a resource for Welsh Government, offering expertise in community aspects of flood risk management, emergency planning, response and recovery.
- Help with developing thinking, knowledge, expertise and new approaches.
- Representing the voice of flood affected communities in policy development and decisions.
- Collating and feeding back learning and information from communities, delivery partners and development officers; and helping integrate this in the ongoing development of the Framework.

For Communities:

- Providing hands-on advocacy, advice and other support following flooding and throughout the whole recovery process.
- Providing support to communities struggling with local flood problems, including: to engage appropriate delivery partners / stakeholders; advocacy and providing a stronger voice; developing community flood groups (ideally via local Development Officer capacity); networking with other communities.
- Advocacy and representation for community voices at policy level, with delivery partners and other stakeholders (including private sector).
- Providing access to a network of flood affected communities, for mutual learning and support.

With Development Officers:

- Helping Development Officers understand the relevance of flood issues and general capacity and resilience building to their areas of work.
- Providing expertise on flood-specific capacity and resilience building to help development officers embed these processes in their wider work with communities.

- Providing advice and expertise in helping development officers: respond to local flood issues that are raised by communities; facilitate community participation in flood risk management / emergency planning, response and recovery; set up and support the development of local community flood groups.

With Delivery Partners:

- Providing expertise (and training) in understanding and responding to community perspectives and needs in flood risk management, emergency planning, response and recovery.
- Supporting, and collaborating in the, development of expertise and knowledge in relevant cross-cutting themes, such as community participation, behaviour change.
- Feeding back information and learning from communities; and facilitating two-way dialogic communication.
- It is worth also considering the potential for the FSSW to act as a resource for partners working on community resilience beyond the field of flooding – e.g. expertise it develops regarding general resilience building would be more widely relevant and useful.

In addition to work via these four relationships a FSSW would also need to carry out wider networking with other relevant fora and experts (including the National and Scottish Flood Forums).

In answering the Recommendation of the Inquiry, we should briefly clarify the ways in which the proposed FSSW is designed “*along the lines of*” the Scottish Flood Forum. The FSSW we propose above has similarities to, and differences from, a flood forum model.

It is like the Scottish and National Flood Forums, in that:

- It is driven by a community perspective and community needs.
- It provides expert support for communities and stakeholders.
- It facilitates a network of flood affected communities.

We also suggest that it differs, in that:

- It has a strategic delivery role within a wider framework of flood support, ultimately owned by Government.
- It focuses on general resilience and capacity building, via other work that is already taking place in communities; rather than working entirely through a flooding approach and flood specific actions.
- It is not an umbrella group for (nor is led by) those who have been affected by flooding – as for example the National Flood Forum in England was (although this is not the Scottish Flood Forum model either).

Resource and status

Based on the remit proposed here, and assuming the other parties identified also play their proposed roles in delivering the Framework (including delivery

partners and development officer capacity and buy in), we suggest that the FSSW would require three or four personnel, as follows:

- CEO / Director: Working with Welsh Government, delivery partners, Development Officers and wider networking
- Community liaison officer: Working with communities to support them in addressing local flood issues, alongside Development Officers
- Recovery field worker: providing hands-on support following flooding (plus potential need for extra resource depending on scale of flood incidents)
- Administrative support.

Dependent on questions of desired scale and available budget, the community liaison and recovery field worker posts could overlap and be delivered by a single post, as community liaison could take place when there was no need for flood recovery support (and could be put on hold during periods when recovery support was being provided). However, in order to fulfil the dual roles of accountability to Government and responsiveness to community needs, we would suggest that the CEO should not be diverted solely onto community tasks during the response and recovery phases of a flood incident.

Given the remit of the FSSW proposed above, it can be inferred that the FSSW team would need to possess a range of skills and attributes. Ideally, these should all also be vested in the CEO, although it is likely to be challenging to find all these attributes in a single person. The range of skills the team would need to possess should include:

- Flood support expertise (including personal flood experience? – evidence from stakeholder interviews and workshops suggests that the ability to empathise and understand the experiences of those affected can be important)
- Familiarity with the flood support landscape and key stakeholders
- Policy liaison experience
- Community development and engagement/participation experience
- Research skills
- Management skills
- Welsh language capability

Some degree of independence will be necessary for a flood support service if it is to be able to deliver advocacy support and a trusted independent voice for those affected by flooding. However, as raised by Paul Hendy (Director of the Scottish Flood Forum), being part of government can have significant benefits, such as making it much easier to engage local authorities and other stakeholders. This balance will need to be considered carefully.

In his stakeholder interview, Paul Hendy also discussed the issue of core funding, relating that he considered it essential to allow such an organisation to reliably respond to community needs (which he contrasted with the situation of the National Flood Forum that needs to raise project specific funding before

they can provide hands-on support to communities following a flooding event). Core funding would allow such a service to:

- Always be ready to respond to community need (in case of flood).
- Ensure stability and continuity of provision, which would enable growing awareness of the service among partners and communities, and the building of expertise and knowledge within the Service.

5.4 Success Measures

Here we outline the range of success measures that are likely to be relevant to help judge the overall effectiveness of the Framework for Flood Support in Wales, including a FSSW. The Welsh Government would need to be responsible for all these measures, including making sure all providers carried out necessary measurement. Importantly, all those responsible for delivery would need to agree and own their measures of success, and these should be co-developed via a process of consultation. This should also be the case for communities, which should have the chance to help define specific success measures for themselves (alongside other universal measures). As a starting point, this section identifies some of the different types of measures that will be necessary at different levels in the framework, as follows:

Judging the whole Framework for Flood Support in Wales

This will need to mirror the elements of a flood support framework identified above and should include process and outcome measures, such as:

- The development of expertise, methods and frameworks for e.g. community engagement / participation, behaviour change, identifying vulnerabilities, building resilience.
- Capacity building in stakeholder organisations.
- Greater integration between: different stages in the flood / IEM cycle; levels (e.g. between delivery frameworks and affected communities).
- Development of aims, framings and ways of working in all relevant stakeholder organisations.
- Provision of expert advice and support to stakeholders.
- Provision of hands-on support to affected communities and stakeholders.
- Reduced flood impacts, e.g. number of homes affected / households displaced by flooding; duration of negative impacts from flooding in affected communities; direct and indirect costs relative to the number of incidents of flooding.
- Capacity of the flood support framework to learn and evolve.

Measuring success from the point of view of affected individuals and communities

It will be important to measure success at the level of individuals and communities affected by flooding. Following the theme that flood responses need to be specific to different places, it is likely that some of these measures will also need to be context specific, although others will be more widely applicable. Community participation in developing and setting these measures could potentially take place via existing frameworks such as local FCERM

Strategies. Measures here will again cover outcomes and processes and might include, for example:

- Quicker and better recovery following flooding.
- Improved resilience and reduction of risk of flood impacts following a flood event.
- Local flood problems that can be, are solved / fixed for the long term.
- Level of community involvement in determining flood risk and designing locally appropriate responses.
- Levels of knowledge and action.
- Communication channels with relevant stakeholders and extent of successful collaboration between those affected and agencies.

(Note that the above list includes a number of suggestions from community and practitioner participants in Workshop 2 – as also listed in the Workshop 2 report.)

It is also worth considering success measures that capture underlying aspects of individual and community resilience, such as: social capital; capacities; abilities to self organise, learn and adapt in affected communities. These measures may prove more indicative of the ability of those affected to deal with flooding impacts than more common measures, such as levels of flood risk awareness.

Judging a Flood Support Service for Wales

Based on the discussion of the FSSW remit above, we suggest the following examples of success measures relating to each of the Support Service's four main relationships:

For Welsh Government:

- Provision of specialist advice to Welsh Government: measure the impact of advice on policy / strategic direction.
- Strategic work, including: development of understandings and methods; influence on aims, framings and approaches at Welsh Government and stakeholder levels; contribution to integration of flood agenda into wider frameworks of community support (e.g. community development work, regeneration, Fire Rescue Service work, Sustainable Development policy and practice).

For Communities:

- Development of processes for working with flood affected communities, including: for prioritising targeting of work; for identifying needs; for working via delivery partners and Development Officers to meet needs.
- Provision of specialist support to affected individuals and communities, including: advocacy and other support for communities to be more involved in flood risk assessment and management; specialist support following flood incidents.
- Number of households and communities supported (at different phases of the flood cycle).
- Individual and community satisfaction with support provided.

- Improvement in flooding outcomes over time, in communities that have had direct contact with the FSSW (e.g. changes in experience in consecutive flooding incidents).

With Development Officers:

- Helping Development Officers successfully establish and support flood groups; and build capacity and resilience in communities.
- Success in embedding flood-relevant work (including general capacity and resilience building) within existing work of Development Officers.

With Delivery Partners:

- Provision of expert advice and support to stakeholders, including: extent of support offered; number of partner organisations and workers supported and number of specific times different support was provided; feedback on usefulness from users; development of service following feedback.
- Development of relationships with stakeholders, including for example: building relationships and structures with all Local Authorities to allow speedy delivery of expert advice and support following flood incidents.

6. Next Steps

This report has set out in turn:

- The challenges facing flood support provision
- A framework for the future development of flood support provision in Wales
- Within which, the ideal role of Welsh Government.
- And the shape of a new arms length Flood Support Service for Wales

Effectively, this amounts to a blueprint for the development of flood support provision in Wales. Yet it is critical that for this blueprint to go forward, it must fit with existing flood policies and frameworks at all levels of government, and that those who will have a role in delivering it also have a sense of shared ownership of it. Finally, it should be reiterated that the framework should be seen as dynamic, and will evolve over time based on the insights and experience of all stakeholders.

Accordingly there is still much detailed work to be done to convert the recommendations in this report into final plans for a Flood Support Framework and FSSW which can be implemented and launched to the public. Some of the suggested steps for further development are outlined below:

1. Welsh Government consideration, refinement and ownership of the Flood Support Framework
 - Including mapping against existing provision – are all these agreed to be gaps / opportunities for further work?
 - Mapping against and integrating with existing policy and delivery frameworks, e.g. FCERM Strategies.
 - Political and practical considerations (in flood policy, Sustainable Development strategy, and wider Welsh Government governance issues).
2. Welsh Government to develop a framework overview / proposal as a basis for approaching delivery partners, community development organisations and other flood-related stakeholders
 - Effectively a round of consultation/deliberation on the Flood Support Framework.
 - Looking for agreement on how each element is delivered, including responsibilities and resourcing over a fixed period in short/medium term.
 - Beginning a process of collaboration and co-ownership of success measures for the Framework and each delivery partner.
 - Plus parallel discussion of the shape, remit, delivery model, and resourcing, of the FSSW.
3. Refine Framework and formalise agreements with partners following initial discussions.

4. In parallel, Welsh Government work to develop model of FSSW:
 - More detailed scoping of remit, delivery model and resourcing (informed by consultation/deliberation above, and complementing roles of other delivery partners).
 - Discussion with existing flood forum services to identify further refinements, and potentially explore their interests in playing a role in the new FSSW.
 - Share notes with counterparts in Northern Ireland and Republic of Ireland, reported to be currently involved in developing similar services.
 - Finalise resource needs, timeframes, and secure budget.
 - Tighten roles / job descriptions and recruit.
5. Once established, the key FSSW staff will need to continue the process of development by taking ownership of (and refining) aspects of their remit, including:
 - Agreeing final success measures for the FSSW.
 - Developing mechanisms for extending flood preparedness work in communities, and embedding flood preparedness within broader community capacity building.
 - Setting up a mobile expert support service based in flood-affected communities.
 - Collating and disseminating best practice across the flood cycle with delivery partners (including defining a list of detailed actions – including householder behaviours - and outcomes to be shared with delivery partners and applied according to context).
 - Providing input into Welsh Government policy and strategy, within and beyond flood context.
 - Collaborating with national flood forums and associated practitioner/expert networks.

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