



# **Strengthening flood risk management and preparedness in Lancashire**

## **Overview and Scrutiny Review – November 2019**

For further information regarding this report, please contact

Gary Halsall

Senior Democratic Services Officer (Overview and Scrutiny)

01772 536989

[www.lancashire.gov.uk](http://www.lancashire.gov.uk)

# Contents

	Page No
Executive summary	3
Background	3
Scope of the review	3
Membership of the task and finish group	4
Methodology	4
Findings	7
• Context	7
• Lead Local Flood Authority role and powers	8
• Planning and development management	9
• Pre-application service offer	11
• Delivery of Sustainable Drainage Systems (SuDS) and adoption	11
• Statutory consultees and water companies	13
• Local policy – Ordinary watercourse and culverting	14
• Owning a watercourse	16
• Flood risk asset management	16
• Project funding	18
• Sewer flooding and property level protection	18
• Permitted development rights	20
• Discharge behaviours	20
• Farmers and landowners	21
• Personal and community resilience	24
• Emergency planning and response	25
Conclusions	29

Recommendations	31
Acknowledgements	35
Glossary of terms and abbreviations	36
Websites	38
Appendices	
• A – Understanding different sources of flooding	39
• B – Who's responsible for managing flood risk?	40
• C – Who does what during a flood?	41

## Executive summary

This report provides the findings from several meetings held with risk management authorities (RMAs – see page 37 for the full list), emergency services and other external organisations involved with flood risk management within Lancashire County Council's administrative boundary. The role of Lead Local Flood Authority (LLFA) for the county council is new, emerging and complex and this report highlights a number of key issues faced by risk management authorities, residents, farmers and landowners.

The review also covered aspects such as watercourses, culverting, asset management, personal resilience, and permitted development rights and highlights the consequences of discharge behaviours and infringements as well as the lack of funding streams and joined up thinking at all levels to mitigate flood risk.

A separate findings document compiled from a scrutiny inquiry session on the future of flood action groups in Lancashire held in June 2019 is also available from the county council's website<sup>1</sup>. The findings from this document have helped to shape some of the recommendations contained within this report. It is advised that the findings report should be read in conjunction with this report.

## Background

On the 16 October 2018, the External Scrutiny Committee considered a request to establish a task and finish group on strengthening flood prevention and preparedness in Lancashire. This was subsequently approved by the Internal Scrutiny Committee at its meeting held on 16 November 2019, with the first meeting of the group being held on 31 January 2019.

## Scope of the review

The purpose of this task and finish group was to bring together the expertise of all flood risk management authorities, community based flood action groups (FIAGs), and residents to better understand how the County Council as Lead Local Flood Authority (LLFA) and all other flood risk management authorities could better support residents to:

- Be prepared for flooding;
- Respond to flooding;
- Recover from flooding; and
- Understand what we can do together to reduce flood risk.

Across Lancashire there were approximately 40 community based flood action groups. Some had been active for years and were well progressed in their

---

<sup>1</sup> External Scrutiny Committee agenda 21 January 2020 - <http://council.lancashire.gov.uk/ieListDocuments.aspx?CId=1396&MId=9487&Ver=4>

understanding of local flooding mechanisms and the work that was needed to reduce flood risk and prepare communities so that they are ready to respond and recover should a flood event happen. Other groups were much newer, but learning fast. There was as yet no mechanism for these groups to share what they had learnt, or to present their collective insights to Lancashire County Council and County Councillors.

Following advice from officers on managing expectations, it was agreed at the start of the review to rename the task and finish group's review to; "Strengthening flood risk management and preparedness".

## **Membership of the task and finish group**

The task and finish group was made up of the following County Councillors:

- Stephen Clarke
- Nikki Hennessy
- Erica Lewis
- Eddie Pope
- Matthew Salter (Chair)
- Cosima Towneley
- David Whipp

County Councillor David Foxcroft was a member of the group between January and June 2019. County Councillor Stephen Clarke replaced County Councillor David Foxcroft on the group thereafter.

## **Methodology**

The task and finish group considered documentary evidence and presentations from a variety of sources.

From the outset of the review it was agreed that the group should hear from local flood action groups across Lancashire, and that a scrutiny inquiry session would provide the ideal opportunity to bring these groups together to hear their views and experiences. The Newground Flood Team, part of Newground<sup>2</sup> CIC (Community Interest Company) agreed to help facilitate the inquiry session. Key lines of enquiry were shared with all flood action groups before the session was held. The option to submit written responses was also provided to assist those who were unable to attend to contribute to the review. A findings report was produced following this session and shared with all flood action groups and risk management authorities.

---

<sup>2</sup> Newground website - <http://newground.co.uk/>

A round table discussion involving a number of representatives from emergency services, the county council's Emergency Resilience Team and risk management authorities to discuss some of the findings from the session was also arranged.

During the course of the review the group took the opportunity to contribute to the county council's response to the Environment Agency's consultation on the Draft National Flood and Coastal Erosion Risk Management Strategy for England, as well as the draft Lancashire and Blackpool Council Local Flood Risk Management Strategy.

This report reflects the views and recommendations of Overview and Scrutiny. It does not necessarily reflect the views of the county council. In many cases, suggestions are made for further consideration to be given to issues, and this would need to include a full assessment of the legal and financial risks and implications.

## **Officers**

The following people attended meetings of the task and finish group:

- Rachel Crompton, Flood Risk Manager, Lancashire County Council
- Dianne Taylor, Principal Flood Risk Manager, LCC
- Paul Blakeley, Partnership Co-ordinator, LCC
- Andrew Moss, Interim Head of Service Highways, LCC
- Paul Binks, Highways Asset Manager, LCC
- Harvey Danson, Area Highways Manager, LCC
- Rob Wilson, Area Highways Manager, LCC
- Mark Taylor, Resilience Service Delivery Manager, LCC
- Gary Halsall, Senior Democratic Services Officer (Overview and Scrutiny), LCC
- Heather Cummings, Business Support Officer, LCC
- Craig Alker, Democratic Support Officer, LCC
- Clare Nolan-Barnes, Head of Coastal and Environmental Partnership Investment, Blackpool Council
- Cath Thomas, Head of Development Management, West Lancashire Borough Council
- Laura Clayton, Emergency Planning and Resilience Manager, Electricity North West
- Steven Kenyon, Drainage Area Manager - Lancashire, United Utilities

- Katie Duffy, Drainage Asset Manager (Cumbria and Lancashire), United Utilities
- Sophie Tucker, Sustainable Drainage Systems Manager, United Utilities
- Steven Wong, Area Stakeholder Manager (Lancashire, Merseyside & Wirral), United Utilities
- Tony Griffiths, Wastewater Network Strategy Manager, United Utilities
- Paul Bond, FCRM Advisor - Flood Resilience, Environment Agency
- James Newman, Flood Resilience, Environment Agency
- Adam Briggs, Environment Advisor (North West), National Farmers' Union (NFU)
- Robert Frewen, Rural Practice Surveyor, County Land and Business Association (CLA)
- Mark Warwick, Station Manager – Response and Emergency Planning, Lancashire Fire and Rescue Service
- Chief Inspector Phil Hutchinson, Lancashire Constabulary

A total of 40 people attended the scrutiny inquiry session on the Future of Flood Action Groups in Lancashire which was held in July 2019. Attendees are listed in the findings report.

## Findings

### Context

Flooding is multi-causal and can be one of the most devastating communal events that most people in this country could experience. It can have a significant impact on family life, forcing people to become isolated or displaced from their homes. Its impact on travel and transport even after the weather has calmed down, can leave people anxious and frustrated about their own travel plans and access needs and their ability to provide for their family.

In some cases, power loss will add to the misery with colder, darker conditions; loss of valuable food and drink in fridges and freezers; loss of local news by TV and radio, the inability to charge mobile phones therefore losing contact with the outside world. The forces of nature at work mean that silt, rubble and worse can wash around public and private spaces, creating unpleasantly dirty conditions that can't be easily cleaned or removed. In other cases there can be a huge loss of productivity in our countryside leading to inadequate food supplies for livestock and ruined crops, leaving farmers and landowners in desperate financial straits and taking years for their land to recover. All of which can have detrimental effects on people's physical and mental health.

There are different sources of flooding and the Environment Agency identifies the following sources as the most common:

- River flooding
- Coastal flooding
- Surface water flooding
- Sewer flooding
- Groundwater flooding
- Reservoir flooding

The county council cannot control the weather element of a flood, only the physical/legal aspects of flood risk management in its role as a lead local flood authority. This role is carried out by the Flood Risk Management Team within the Highways and Transport department of the county council. The team must work with the other flood risk management authorities as identified in the Flood and Water Management Act 2010, to deliver various statutory responsibilities associated with flood risk management.

The risk management authorities within the county council's administrative boundary are as follows:

- The Environment Agency,



- Lancashire County Council as both the lead local flood authority and highway authority,
- The 12 district, borough and city councils as Local Planning Authorities (LPAs) and with some powers under the Land Drainage Act regarding flood risk management works in some circumstances, some of which are also identified as Coastal protection authorities i.e. Lancaster, West Lancashire, Wyre and Fylde Councils,
- Earby and Salterforth Internal Drainage District – the only internal drainage board in Lancashire,
- United Utilities and Yorkshire Water as the water and sewerage companies.

Blackpool Council and Blackburn with Darwen Council are both Lead Local Flood Authorities in their own right.

The Flood Risk Management Team does not provide assistance during a flood event, neither does it undertake a role during an emergency. This role is undertaken by the Emergency Resilience Team working with partners.

### **The Lead Local Flood Authority's role and powers**

The Lead Local Flood Authority's role is new, emerging and complex. It leads in managing local flood risks (i.e. risks of flooding from surface water, ground water and ordinary (smaller) watercourses).

The Flood and Water Management Act 2010 set out the national position and the legal framework to address the need for drainage authorities to co-operate and the Lancashire and Blackpool Local Flood Risk Management Strategy 2014-2017 set out how the two lead local flood authorities would go about meeting these obligations. Due to contractual arrangements with a private provider, Blackburn with Darwen Council could not engage with Lancashire County Council and Blackpool Council in establishing a combined local flood risk management strategy for the Lancashire 14-area<sup>3</sup>. Blackburn with Darwen are currently producing a strategy independently, and work closely with Lancashire and Blackpool under a Lancashire Strategic Partnership to ensure that a consistent approach to flood risk management is taken.

Risk Management Authorities won't ever stop flooding from happening. However through short, medium and long term initiatives working with partners and communities the lead local flood authorities will aim to better manage risks, reduce the severity of impact and increase resilience in local Communities.

The county council's powers as lead local flood authority include to:

- Develop and implement flood risk management schemes;
- Enter private land to inspect, to survey and/or to install works (works re flood risk management from surface runoff or groundwater);

<sup>3</sup> Geographies of Lancashire (Lancashire Insight webpages) - <https://www.lancashire.gov.uk/lancashire-insight/geographies-of-lancashire/>

- Choose how we engage with the Risk Management Authorities;
- Define who we want to call ‘partners’ and how we engage with them;
- Define how far we can be involved in incident response and management.

Other statutory duties include:

- To maintain a register of assets;
- Investigate significant local flooding incidents and publish the results of such investigations (Section 19 reports)<sup>4</sup>;
- Duty to undertake a statutory consultee role providing technical advice on surface water drainage to local planning authorities for major developments (10 dwellings or more).

On devolving powers to district councils, it was noted that the LLFA would not force the issue and that clarification on how devolved powers would work was needed. There was also the potential for overlap in service provision.

On 9 May 2019, the Environment Agency consulted on its Draft National Flood and Coastal Erosion Risk Management Strategy for England. The group took the opportunity to provide advice to the Cabinet Member for Technical Services, Rural Affairs and Waste Management for potential inclusion in the county council's response. In addition the group also took the opportunity to provide advice on the revised Lancashire and Blackpool Local Flood Risk Management Strategy due to be published in April 2020. Blackburn with Darwen's strategy would also be published around this time.

## Planning and development management

The importance of Section 14, paragraph 163 of the National Planning Policy Framework was highlighted to the group when it heard evidence from West Lancashire Borough Council:

*"When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:*

---

<sup>4</sup> At the time of drafting this report the North West Regional Flood and Coastal Committee was undertaking a review to standardise the content of future Section 19 reports for the region. The outcome of that review was not known when this report was submitted to the External Scrutiny Committee on 21 January 2020. The BSI Group (British Standards Institution) has also developed and published a BSI Standard on [‘Post-event flood assessments – Guidance on investigating flooding incidents’](#)

- a) *within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*
- b) *the development is appropriately flood resistant and resilient;*
- c) *it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*
- d) *any residual risk can be safely managed; and*
- e) *safe access and escape routes are included where appropriate, as part of an agreed emergency plan."*

A lead local flood authority's statutory consultee role is to provide a substantive response to the local planning authority<sup>5</sup>, within the legislative framework, to help inform the decision making process.

Concerns were raised about local planning authorities taking forward planning applications without waiting for responses from the lead local flood authority. It was the view of the borough council that the lead local flood authority's Flood Risk Management team was under resourced and as a consequence the borough council previously had to take decisions on planning applications where they could not afford to wait for advice from the lead local flood authority in order to meet their own obligations under the planning rules. On average, the Flood Risk Management team could be dealing with around 1000 applications per year with only five team members to assess them. A single development site could generate around four separate exercises including; pre-planning consultation, outline application, reserve matters application and discharge of conditions.

It was further noted that local planning authorities only needed to consult with the lead local flood authority, and not to wait for a response.

The following common misconceptions on the role of the lead local flood authority were also highlighted:

- The LLFA/LPA cannot insist that existing flooding problems are rectified by the developer - the developer only has to demonstrate they are not increasing flood risk to or from the site (case law).
- The LLFA does not adopt Sustainable Drainage Systems (SuDS) features - the county council as the local highway authority may as part of an adoptable highway.
- The LLFA enforcement powers are limited to Ordinary Watercourses (Land Drainage Act 1991) - the LLFA does not enforce on planning conditions.
- The LLFA are not the determining body - this is the responsibility of LPAs, yet members of the public would send letters of complaint to the LLFA. It was noted that LLFA officers are not planners, but ensure they understand the opportunities and constraints of the planning system.

---

<sup>5</sup> Local Planning Authorities in Lancashire are the district, borough and city councils and not the county council.

- It is not for the LLFA to design solutions for developers or planners - the LLFA's role is to assess/audit planning applications and any submitted supporting documentation and provide substantive comments.

It was highlighted by one LPA that they rarely had the final sign-off on the drainage that was installed in the ground as developers often defaulted to using private building control companies as opposed to Local Authority Building Control services (it was not clear whether this was the case for all LPAs across Lancashire). When it came to enforcement i.e. to ensure the drainage scheme approved by an LPA was what had been provided, LPAs did not have the resources to go out and check and left this part of the process down to goodwill. If complaints were received in respect of drainage, the task of uncovering what had been put in the ground would be difficult to determine. It was felt that this was one of the weaknesses of the current national system.

### **Pre-application service offer**

Approximately two years ago the county council began to offer a chargeable pre-application service. The service offered developers advice on flood risk and land drainage for their developments. It was hoped that if developers followed advice provided via this service, the application process could be sped up in terms of getting applications approved. However, the scheme had been underutilised.

Whilst the county council had asked for the service to be advertised on district council websites, the need to promote this service and the benefits of using it was highlighted. It was even suggested that the LLFA should consider implementing a 'try before you buy' scheme, where developers could try the service free of charge for the first time, so they could see how it worked in practice before paying for the service in subsequent applications. It was noted that the LLFA could not force an applicant to utilise the scheme.

### **Delivery of Sustainable Drainage Systems (SuDS) and adoption**

There is currently no timescale for the adoption of SuDS across the county as adoption is voluntary in England. A number of findings have already been highlighted by previous reviews conducted<sup>6</sup> since the introduction of the Department for Environment, Food and Rural Affairs' non-technical standards on SuDS. However,

---

<sup>6</sup> CIWEM (Chartered Institution of Water and Environmental Management): A place for SuDS - <https://www.ciwem.org/policy-reports/a-place-for-suds>

Achieving sustainable drainage (on behalf of the Landscape Institute and the Construction Industry Council (CIC), Flood Mitigation and Resilience Panel, in association with Kent County Council) - [https://www.rtpi.org.uk/media/3194082/achieving-sustainable-drainage\\_jan19.pdf](https://www.rtpi.org.uk/media/3194082/achieving-sustainable-drainage_jan19.pdf)

Ministry of Housing Communities & Local Government – A review of the application and effectiveness of planning policy for Sustainable Drainage Systems (SuDS) - [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/734684/Review\\_of\\_SuDS\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/734684/Review_of_SuDS_Report.pdf)

United Utilities' experience on the delivery and adoption of SuDS included the following issues:

- There was a reliance on the planning system and no separate approval process as had been envisaged by the Flood and Water Management Act 2010.
- Drainage was sometimes viewed as detail to be sorted later by the developer and the housing layout was usually established before drainage was thought about, rather than being a material consideration (to think of drainage as critical infrastructure to inform the layout).
- The right of connection to the public sewer still exists and that developers know they have this to fall back on. The group felt that if drainage by any other means is seen to be unreasonably difficult to achieve or expensive, this may disincentivise developers from fully exploring alternatives to using the sewers, putting more pressure on our sewer system.
- All developments regardless of size and flood risk should be required to provide a business plan setting out their approach to sustainable surface water drainage.
- United Utilities can requisition (i.e. connect) a sewer on behalf of the developer to a sewer, but they can't connect to a watercourse. Developers then adopt a less sustainable option for drainage.
- In some cases developers are "held to ransom" from riparian owners to connect by quoting considerable sums of money meaning the developer's right of connection to a sewer is then exercised. This could be resolved perhaps with the advent of calculating statutory compensation especially if it was in the interests of flood risk management.
- Adoption is voluntary in England and there was no requirement for developers to interact with water companies. However adoption can be provided by a Limited Company appointed by Ofwat referred to as a NAV adoption – New appointments and variations<sup>7</sup>. It was noted that such appointments would be made to companies who were not designated as Risk Management Authorities.
- People living in new housing developments were paying contributions for a property management company to maintain certain aspects of the development and unadopted roads and sewers, whilst residents paid council tax and water rates.
- Developers were not signing Section 104 agreements (an agreement between a developer and sewerage undertaker for the adoption of sewers serving a development) and there was no way to force developers to sign such

---

<sup>7</sup> Ofwat webpage – New appointments and variations (NAVs) - <https://www.ofwat.gov.uk/regulated-companies/markets/nav-market/>

agreements. United Utilities through Water UK, were looking at alternative ways to ensure these are signed.

- Construction was at risk on a number of development sites that received only technical acceptance whereby the majority of the work had already started beforehand. If mandatory adoption was in place and Section 42 of the Flood and Water Management Act 2010 (requirement for sewers to be adopted prior to connection to the public system) was implemented, then this would have been resolved.
- Challenges faced by local authorities in being able to adopt public open spaces and roads built by developers<sup>8</sup>

On behalf of its members, Water UK wrote a letter to the Ministry of Housing, Communities and Local Government in November 2018, recommending places where the planning practice guidance could be updated following the revised National Planning Policy Framework (NPPF). United Utilities had contributed to the recommendations. Owing to wider political factors there was a delay on this review but it was understood through Water UK there were positive discussions taking place.

It was confirmed that right of connection was one of United Utilities' hottest topics on their lobbying list to try and influence change. In Scotland and Wales, where legislation is different, the water companies have been able to introduce policy which has resolved many of the issues faced by water companies in England.

Adoption of SuDS by United Utilities would be business as usual by AMP 7 (Asset Management Planning period 2020-2025).

### **Statutory consultees and water companies**

The issue of water companies not being statutory consultees was routinely discussed at meetings of the group.

Prior to establishment of this group, the Chair of the External Scrutiny Committee, County Councillor Ed Nash psc, wrote to the Secretary of State for the Ministry of Housing, Communities and Local Government to enquire what the reasoning was for water companies not being statutory consultees in regard to planning applications and the likelihood of local water companies becoming statutory consultees being reconsidered in the near future<sup>9</sup>. A response was received in June 2019, and presented to the Committee at its meeting held on 16 July 2019.

The response indicated that local planning authorities could add water companies to a locally specific list of 'non-statutory' consultees. It was suggested that the External Scrutiny Committee should write out to all of Lancashire's district councils to advise

---

<sup>8</sup> Estate road adoption – Lancashire County Council - <https://www.lancashire.gov.uk/roads-parking-and-travel/roads/road-adoption/estate-road-adoption/>

<sup>9</sup> Select Committee on Public Accounts: Thirtieth Report – responsibilities for preventing sewer flooding: <https://publications.parliament.uk/pa/cm200304/cmselect/cmpubacc/463/46305.htm>



them to ensure that the relevant water companies are included as a non-statutory consultee for their planning applications. It was also suggested that this task group be asked to review the response in further detail and to determine whether a further letter be written to the Secretary of State. The Committee requested that this task and finish group be asked to review the response from the Secretary of State and to determine how to proceed.

United Utilities highlighted that this issue was raised at many local flood action group drop in sessions. In addition members felt there might be an assumption that as water companies were not statutory consultees, the sewers must be OK. United Utilities were actively involved in development services searching through weekly lists from LPAs and referring any matters to engineers to review and recommend any conditions. Officers would attend LPA meetings to go through the plans and highlight any issues that a new development might bring. United Utilities also provide a free pre application service to help identify any issues at an early stage<sup>10</sup>.

United Utilities confirmed that they do not object to housing developments and that Ofwat expectations are that developers should be treated as customers and they therefore have a duty to facilitate developments. It was noted that water companies are statutory consultees for the production of district council Local Plans.

Members were reassured that in the absence of a statutory role for water companies within the planning process, the county council as the LLFA would represent the views of United Utilities where they thought there was an impact on flood risk management. It was also highlighted that if United Utilities and Yorkshire Water were alarmed by something then the county council could pick this matter up and report it as their position as statutory consultee. In terms of proposed SuDS, water companies could also submit analysis and advice to the LLFA to pass on to the relevant LPA for consideration.

The group agreed that district councils be asked to provide evidence on this matter so that a collective response could be sent back to the Secretary of State to reconsider the position.

### **Local policy – Ordinary watercourse and culverting**

Prior to the introduction of the Flood and Water Management Act 2010, providing consent for works on ordinary watercourses was the responsibility of the Environment Agency and enforcement activity was undertaken by the relevant district council. It is now however the responsibility of the LLFA to manage both consenting and enforcement activity related to ordinary watercourses (except in those areas covered by an Internal Drainage Board).

The county council's policy position on Ordinary Watercourse Consenting and Enforcement sets out how the county council would apply the relevant legislation and undertake its responsibilities for ordinary watercourse consenting and enforcement.

---

<sup>10</sup> United Utilities' pre-application service webpage: <https://www.unitedutilities.com/builders-developers/pre-development/>

The policy was currently being reviewed in terms of support required to manage processes and to be as sustainable as possible. The revised policy would:

- Reflect up-to-date language on riparian ownership;
- Confirm the approach to ‘unconsented activity’;
- Reflect new by-laws to confirm local interpretation and procedures;
- Highlight the potential for a culverting policy: creating new culverts to be option of last resort.

On the last point, it was highlighted that some developers (and landowners) were known to start the culverting process before or without any of the necessary planning permissions in place. The very nature of culverts being hidden underground meant that their installation and placement was often forgotten about until an incident occurred and upon investigation turned up a broken culvert. It was felt that enforcement of some kind in relation to culverts should be put in place. Concerns were also raised in relation to setting a precedent with retrospective consenting.

A draft culvert policy was submitted as part of the review to assess the benefits and help gauge whether a recommendation to establish the policy formally should be submitted to the Cabinet Member for consideration. One of the key reasons behind suggesting the creation of a culvert policy was to highlight that the county council did not encourage culverting and to take control back from developers. Consent would still be required to culvert and developers would need to provide evidence base in their application, however a blanket ban on culverting could not be enforced. Implementing a culvert policy would also have onward benefits relating to biodiversity, water quality and improved maintenance of water features.

If the policy was implemented officers would inform district councils that it had been introduced. Whilst it wouldn't be a planning document, it would add more weight to the Flood Risk Management team's aspirations. District councils could even be encouraged to use the policy as a supplementary planning document – this would add more weight to the policy. Having a culvert policy available on the county council's website alongside other policies would assist developers prior to submitting planning applications for consultation.

It was suggested that developers and landowners be encouraged to report the locations of any discovered or known culverts (both historic and those laid down during the building process) to assist the county council in developing its flood risk asset register. However, the county council did not have an online mapping system in place that the public/landowners could access to check the location of culverts. Members explored whether this could be achieved through the use of the county council's existing systems i.e. MapZone/MARIO and the HAMS (Highways Asset Management System). It was explained that the current HAMS system had improved working practices for recording highways assets, but that it was not necessarily fit for purpose in terms of recording assets in relation to watercourses and rural areas. Officers were currently considering the options to move forward.



## Owning a watercourse

On owning a watercourse, the LLFA was often challenged when a watercourse ran between the boundaries of two land areas under different ownership, in particular when both land owners had a dispute over who should be responsible to maintain the flow of the watercourse. Such circumstances often meant that landowners formed their own views on responsibility. In essence responsibility to maintain flow rested with landowners.

On enforcement of the Ordinary Watercourse Consenting and Enforcement policy the Flood Risk Management team had to use reasonable argument in situations where landowners had altered a watercourse without LLFA consent. In certain cases there was no record of the characteristics for a watercourse prior to alteration and the team would have to assess the work to determine what permanent harm had been done by the changes made and if there was any value in returning the work to how it was or might have been previously (if known).

In these circumstances the LLFA had two options available to it:

1. Take enforcement action against the land owner to return the water course to how it was previously (only if the LLFA was so concerned about flood risk); or
2. Write to the land owner stating that the LLFA had been made aware of the changes being made without their consent and record the changes made in a register of unconsented works.

If it was established that the changes made had increased the risk of flooding at a future date, then enforcement actions would be taken.

## Flood risk asset management

The Asset Management Team within the council is currently working on improving assets and a drainage capital programme of £1m had been set aside for the highest priority activities relating to highways drainage assets. It was acknowledged that some work was carried out on a reactive basis and there was revenue in place to do this activity. The assessment criteria for accessing funds from the capital programme included the impact on housing and the priority network for gritting. A reserve list of work was also retained by the team.

Work was also underway to update the new asset register<sup>11</sup> within HAMS. Work was prioritised by concentrating on water courses and areas of high risk which had now been completed.

Some of the flood assets recorded on HAMS included:

- Debris/trash screens

---

<sup>11</sup> Flood Risk Asset Management Register: <https://www.lancashire.gov.uk/council/strategies-policies-plans/environmental/lancashire-and-blackpool-flood-risk-management-strategy/>

- Culverts
- Footbridges
- Pumping stations
- Flood defence walls
- Flood defence banks
- Flow monitoring stations

There are approximately 300,000 gullies across the county and in 2017, the county council adopted a Code of Practice for the maintenance and cleaning of road gullies within the adopted highway<sup>12</sup>. The aim of the code of practice amongst other aspects was to "ensure that the cleaning of all publically maintainable vehicular highway gullies that are identified on the 'Priority Gully Cleansing Schedule' are maintained to the same consistent standard throughout Lancashire". The code of practice highlighted that a priority programme of works based on an annual review of the gully network would be drawn up to enable gully cleaning operations to be carried out as effectively as possible. The group was informed that maintenance and cleaning of gullies was carried out on a cyclical basis with around 100,000 being cleaned each year. Members felt that routine maintenance of gullies had declined which meant that drains and culverts were silted up and potentially caused highway flooding that might have been avoided.

It was confirmed that there was not a routine inspection. Historic installation and placement of culverts was not always known, or the council was not always informed of their use. However on preparedness, members explored the possibility of cleaning gullies in response to flood warnings and working with district councils to ensure gutters are kept clear of parked vehicles on the highways. It was highlighted that it would be difficult to have a list of those gullies to be checked and that there were many different types of flood warnings issued in different formats.

On disputes and responsibility for repair work on assets, it was highlighted that determining the problem was a source for concern as issues were often not visible on the surface (e.g. inappropriate connections and crossovers) and that knowledge in relation to the asset had in some circumstances been lost. In some circumstances there was a need to investigate an issue in greater depth as the root cause might not be further away from where the incident occurred.

With regard to trash screens it was reported that the Environment Agency had inherited a number of these assets over the years and that some were found to be in dangerous or hard to reach places and on private land. The group was informed that safe access measures or winches were being constructed to help maintain these assets or in some cases the screen was removed altogether. It was noted that there was no framework in place for private landowners. The county council in 2017 had also adopted a Trash Screen Code of Practice<sup>13</sup> which outlined the procedures to inspect, clean and maintain its trash screens. The code of practice also outlined the methodology used to place each trash screen into a hierarchy which would be used

---

<sup>12</sup> Cabinet Member decision details (April 2017) -  
<http://council.lancashire.gov.uk/ieDecisionDetails.aspx?ID=10114>

<sup>13</sup> Cabinet Member decision details (September 2017) -  
<http://council.lancashire.gov.uk/mglIssueHistoryHome.aspx?IId=60801&Opt=0>

when heavy rain forecasts were received to carry out non-routine response visits pre event, during and post event.

## **Project funding**

Projects for flood risk management and natural land management works could be led by any risk management authority as well as other organisations such as Moors for the Future and the Peak District National Park. Project management boards are convened to commission appropriate design and construction expertise from national consultants, contractors, the county council's highways department or from local habitat and ecology specialists (e.g. Rivers Trust, National Farmers' Union). Flood risk and financial cost calculations are then reviewed and agreed by the Environment Agency. Recommendations are then formed by the North West Regional Flood and Coastal Committee to access funds from DEFRA.

## **Sewer flooding and property level protection**

Sewers may take away rainwater from roofs, patios, driveways and roads as well as the waste water from homes and businesses. The North West region receives more rainfall than most parts of England with many towns and cities across the region being identified as amongst the wettest in the country<sup>14</sup>. In addition the North West region has many densely populated areas.

Sewer flooding was considered one of the worst service failures that United Utilities' customers could experience. It was explained that around 95% of flooding incidents across the North West were caused by operational issues such as blockages, collapses and defects to the network, with the remaining 5% due to hydraulic flooding (overloaded sewers). Other issues encountered by water companies included tree roots and siltation and other granular material such as sand.

For overloaded sewers, United Utilities looked to increase sewer capacity where possible. However, there was only a finite amount of material beneath road surfaces and certain streets which restricted their ability to increase capacity. In addition there was not always the footprint of land to build large pumping stations, which presented engineering logistical restrictions for water companies.

United Utilities tended to design its sewers to a standard that would function to the probability and magnitude of a 1 in 30 rainfall event (3% chance in any year). It was highlighted that they could not design capacity to infinity due to financial and practical reasons.

A Notice of Motion which was considered by Full Council at its meeting held on 17 October 2019<sup>15</sup>, called upon United Utilities and other providers to continue to work towards ensuring property level flood defences to residents and businesses, which

<sup>14</sup> MET Office – how much does it rain in the UK? - <https://www.metoffice.gov.uk/weather/learn-about/weather/types-of-weather/rain/how-much-does-it-rain-in-the-uk>

<sup>15</sup> Minutes (extract) of Full Council, Thursday 17th October 2019 - <http://council.lancashire.gov.uk/mgAi.aspx?ID=70013>

routinely flooded when rainfall exceeded the capacity of the current drainage systems, be improved. The group was informed that property level mitigation tended to be at the lower end of the risk spectrum and typically United Utilities would provide interventions that would normally protect against a 1 in 1 or 1 in 2 rainfall event. To protect against a 1 in 30 event couldn't be achieved and in some extreme cases could involve residents and businesses abandoning ground floor accommodation/levels, filling it up and reconfiguring stairways to use upper levels. However, in cases where properties had flooded for the first time at the higher end of the risk spectrum, United Utilities would review their hydraulic models to determine if the property would flood in a certain rainfall event. If a lower risk was identified that United Utilities could protect against, then they would look at providing some mitigation measures. Residents and businesses were treated equally. It was reiterated that the source of sewer flooding was down to both operational matters and overloaded sewers.

Mitigation could include the installation of non-return valves on drainage systems to protect those properties with cellars, the use of air vent covers for air bricks, flood doors and raising a property's threshold. In the past United Utilities had also provided flood barriers to go across the front of properties, however these were considered to be fundamentally flawed in that they required human intervention to remember to install them and to weather watch. It was felt that managing and tackling the source of flooding and reviewing flood risk management in its entirety was considered an imperative factor, rather than the application of low level mitigation measures provided by water companies.

United Utilities can't stop flooding, but they can significantly reduce the number of times people do flood. United Utilities were investing significantly in delivering property level protection through more affordable interventions referred to as hydraulic flood risk resilience measures – the principles of which had been accepted by Ofwat (the economic regulator of the water sector in England and Wales). Investment would focus on where it was needed as opposed to allocating money proportionally across the region. Monies were however ring-fenced for partnership schemes and the Lancashire Strategic Flood Partnership would benefit from this. The number of repeat incidents was decreasing year on year<sup>16</sup>.

Sewers, culverts, highways drainage and rivers do not operate independently of each other. In addition there is a mis-match of design standards which can have knock-on effects for drainage assets. There was a plea from United Utilities that risk management authorities need to think of drainage networks in an integrated way and to find a better way of working together such as agreeing joint resolutions or mitigation and to resolve common issues to reduce flood risk.

Pollution from run-off (from roads) which entered rivers was one aspect that United Utilities felt was overlooked. It was highlighted that positive results could be achieved through natural treatment such as running the water through tree pit systems and reed beds. A tree pit system installed in Salford<sup>17</sup> demonstrated that such schemes could also provide a natural solution to urban flood risk. Reference was also made to

<sup>16</sup> United Utilities annual performance reports - <https://www.unitedutilities.com/corporate/about-us/performance/annual-performance-reports-2020-25/>

<sup>17</sup> Howard Street, Salford - <https://www.cityoftrees.org.uk/project/howard-street-salford>

the Urban Green Up project<sup>18</sup> in Liverpool, which aimed to improve water management and other aspects through innovative nature-based solutions.

## Permitted development rights

A restriction on the paving of front gardens was introduced in an amendment to the Town and Country Planning (General Permitted Development) Order 1995, which came into force on 1 October 2008. Residents would no longer need planning permission if a new or replacement driveway of any size used permeable (or porous) surfacing, such as gravel, permeable concrete block paving or porous asphalt, or if the rainwater was directed to a lawn or border to drain naturally. However, if the surface to be covered was more than five square metres planning permission would be needed for laying traditional, impermeable driveways that did not provide for the water to run to a permeable area<sup>19</sup>.

It was highlighted by United Utilities that this was an aspect that was in the gift of every local planning authority (unitary/district/city/borough councils), but there was not one authority in the North West that publicised or enforced these rules. Whilst there was a perception that such infringements were considered low level by comparison with others, it was highlighted that residents had a duty to be responsible for their intentions and actions but might not be aware of the rules. United Utilities were keen to partner alongside a small number of key influencers within their region to promote the rules in order to have some control over urban creep (the loss of permeable surfaces within urban areas creating increased runoff which contributes to flooding and other problems).

It was also suggested that if it was in the gift of risk management authorities to require that the surface water from extensions and conservatories was managed more sustainably then this would help make another step to mitigate flood risk. Tarmacking grass verges also increased surface water run-off to combined sewer networks.

## Discharge behaviours

Discharge behaviour is a phrase used to highlight inappropriate actions of residents and businesses when flushing and pouring materials. United Utilities work proactively to get ahead of the next service failure through the promotion of awareness campaigns such as think before you pour<sup>20</sup> and think before you flush<sup>21</sup>. The campaigns aim to educate residents and businesses on the consequences of

<sup>18</sup> Urban Green Up website - <https://www.urbangreenup.eu/>

<sup>19</sup> Environment Agency and Communities and Local Government Guidance on the permeable surfacing of front gardens (2008) - [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7728/pavingfrontgardens.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7728/pavingfrontgardens.pdf)

<sup>20</sup> United Utilities campaign: think before you pour - <https://www.unitedutilities.com/help-and-support/wastewater-services/thinkbeforeyoupour/>

<sup>21</sup> United Utilities campaign: think before you flush - <https://www.unitedutilities.com/help-and-support/wastewater-services/thinkbeforeyouflush/>



discharge behaviours<sup>22</sup>. On some occasions United Utilities would also issue Section 111 warning letters (misuse of sewer) to food establishments.

Wet wipes and baby wipes were considered to be the biggest problem for water companies to resolve. United Utilities had been engaging with manufacturers for a number of years with a view to devising a commonly agreed test protocol on whether a product was likely to cause blockage in sewers. In the meantime Water UK developed a water industry specification known as 'fine to flush'<sup>23</sup>. As of February 2019 only one product passed this test. It was noted that other manufacturers were on the threshold of receiving accreditation.

## Farmers and landowners

Representatives from the National Farmers' Union (NFU) and the Country Land and Business Association (CLA) presented to the group on emerging and longstanding issues raised by their respective memberships.

The lack of Internal Drainage Boards (IDBs) presented challenges for farmers and landowners across Lancashire, in particular where agricultural activity was considerably productive. IDBs were based on the principle of local people making local decisions and were felt to be efficient at managing their patches. Local Authorities and local farmers would automatically gain seats on an IDB. In Lancashire there is only one IDB; the Earby & Salterforth Internal Drainage Board<sup>24</sup>.

The group heard that during the 1970s, a decision was made in the Lancashire area to abolish the Internal Drainage Boards (IDBs) that existed. The background to this decision was not known. However, the Campaign to Protect Rural England's Lancashire branch reported in its magazine from February 2018 that, "a number of IDBs existed in our region but in the 1970's they petitioned the then North West Water Authority to be abolished. Their functions were absorbed by the Authority's regional land drainage committee. The River Crossens Drainage Board was one of the last to go, being officially abolished in 1983. A series of reorganisations saw the land drainage functions of NWWA eventually coming under the auspices of the Environment Agency. The funding of land drainage in Alt-Crossens thereby bucked the national trend by moving from local to central taxation. This is the core of the current problem as government has determined that this cannot continue and the EA is looking to save £1 million per annum by ceasing land drainage operations."

It was the view of the Country Land and Business Association that when those duties transferred over to the Environment Agency, those duties morphed into a right for the agency to drain agricultural land as opposed to an obligation. However, it was intimated that the legal obligation might still exist. In addition to this it was reported that maintenance of draining farm land had been slowly withdrawn by the agency, yet this hadn't been communicated with farmers. Farmers' expectations were

<sup>22</sup> The facts about fatbergs - <https://www.unitedutilities.com/help-and-support/wastewater-services/Monster-found-in-liverpool-sewer/The-facts-about-fatbergs/>

<sup>23</sup> Water UK: Fine to Flush - <https://www.water.org.uk/policy-topics/managing-sewage-and-drainage/fine-to-flush/>

<sup>24</sup> Earby & Salterforth Internal Drainage Board website - <http://earbyandsalterforthdrainageboard.org/>

therefore not being met as they thought and it was taking considerable time to get this message across.

In essence the group was informed that the agency had withdrawn from draining agricultural land in favour of people, houses and businesses. A radical rethink was needed nationally in the way water was dealt with as we experience an increase in extreme weather events.

Frustrations from farmers and landowners was that agricultural land was not viewed as a resource to be protected using public money and the risk management authorities seemed only concerned about getting rid of water from urban dwellings. According to the NFU, eventually all urban water would find its way into farmers' drainage systems leading to further frustrations with the current planning system - there was no joined up thinking in that well-drained agricultural land would lead to well-drained urban systems as well.

The CLA in conjunction with the NFU have been campaigning to re-establish IDBs including in the Alt Crossens catchment area (in West Lancashire)<sup>25</sup>. The group was informed that the Alt Crossens catchment includes the largest area of grade 1 agricultural land in the country that is not served by an IDB. However both organisations were experiencing difficulties in reforming any IDBs or amending the boundaries of existing IDBs. It was noted that the Environment Bill 2019<sup>26</sup> would address the barriers to this and potentially make way for a consultation on drainage rates to be paid.

IDBs were paid for by contributions from persons farming the land (not the owners) which covered approximately 60% of the cost and the local authority contributing the rest give or take variation across existing IDBs. Local Authorities would recover such contributions through local rates (council tax). In the case of the Alt Crossens catchment, West Lancashire Borough Council could potentially need to increase their council tax by more than 2% which would trigger a requirement for a local referendum if proposing to do so. It was suggested that in the case of Alt Crossens, the county council along with NFU, CLA and West Lancashire Borough Council could lobby central government to provide an initial grant of monies from general taxation to cushion any increase in council tax for the borough. There was also an argument to examine other beneficiaries such as Network Rail who would get value from the management of water levels.

The group was informed the EA had received less and less money over time and the infrastructure of flood defence work was in poor condition. Even if IDBs were reformed there would potentially be large capital costs to improve existing flood defence work.

<sup>25</sup> Report of the "Flooding Lower Alt" Lancashire County Council scrutiny task and finish group from 2011/12:

<http://council.lancashire.gov.uk/ecSDDisplayClassic.aspx?NAME=SD253&ID=253&RPID=17783328&sch=doc&cat=13232&path=13135%2c13142%2c13232>

<sup>26</sup> Department for Environment, Food & Rural Affairs policy paper – Environment Bill 2019: <https://www.gov.uk/government/publications/environment-bill-2019>

Legislation was also viewed as a barrier for farmers and landowners to navigate and understand their rights and obligations as riparian owners on what they can and cannot do. In particular there was confusion around the rules, regulations and exemptions for obtaining licences to carry out work on their own land. In addition farmers did not view watercourses as separate defined types (e.g. main rivers and ordinary watercourses) but as a single entity. The term "main river" was felt to be confusing and farmers often approached the EA rather than the county council to obtain a licence to carry out work.

A common approach on advice offered by the county council and the EA on how to carry out the same type of work was needed. It was felt a set of simple instructions on the county council's website to clarify these issues would be helpful or even a dedicated webpage for farmers and landowners. The NFU had produced a water maintenance solutions pack made available to its membership which included a flood relief permit legislation flow chart.

The group heard that one farmer had been accused by local residents of not undertaking their responsibility to drain their land adequately or quickly enough as the reason for a recent flood event. The NFU reported that this issue was reflected across the North West. Other concerns raised by farmers from across Lancashire included:

- Morecambe Bay silting up and a solution needed to resolve the matter in conjunction with the Marine Management Organisation (MMO).
- Lack of recognition for the role farm land has assisting with urban drainage.
- On low lying land farmers relied on assets and infrastructure such as pumping stations. However, the EA was spending less on maintaining these.
- Farm land lost as a result of coastal realignment and ceasing to maintain sea walls.
- Proposals arising from the Natural Course project<sup>27</sup> such as removing weirs. Changing the flow of a river could render productive agricultural land as unusable. The value of a crop of potatoes per hectare is around £7K or £2800 per acre.

In essence it was felt that RMAs should:

- Raise awareness on who's responsible for what (between the county council, districts and the EA) particularly in relation to watercourses and to define a common approach that's one system;
- Clarify the position on what you can do as a landowner/farmer without needing a licence. Likewise clarify what you need a licence for;

---

<sup>27</sup> Natural Course (Lancashire region) webpage - <https://naturalcourse.co.uk/region/lancashire/>



- Free people up to do what needs to be done – common sense approach to minor improvement/management works;
- Recognise the role that agricultural land plays in keeping urban places dry;
- Fund and invest in infrastructure;
- Recognise farmers as a resource – they often help local communities in an emergency situation and have access to equipment that can assist in times of need.
- Recognise that whilst farmers are happy to assist with natural flood risk management projects such as leaky dams and planting trees, the RMAs would need to understand the impact this would have on farmers' core business. It was suggested that natural flood risk management would not be appropriate in all areas of the county e.g. in the Alt Crossens area.

### **Personal and community resilience**

The group heard from the Environment Agency on personal and community flood resilience. Advice on what people could do now to increase their personal resilience included:

- Assemble a flood kit or 'grab bag' (beforehand)<sup>28</sup>
- Have a Personal Flood Plan
- Sign-up for Flood Warnings if available<sup>29</sup>
- Know where to go – away from the flooded area, higher ground/higher story or upstairs, friends or family member's house

In addition to these points the North West Regional Flood and Coastal Committee funded a joint initiative referred to as The Flood Hub website<sup>30</sup> developed by the Environment Agency, United Utilities, Newground, and the Cumbria, Lancashire, Greater Manchester, Merseyside and Cheshire Strategic Flood Partnerships. The flood hub informs communities of support available in their area, what they need, what flood alerts are available to sign up to, and the importance of general awareness and flood warnings. The website also features a range of flood related resources for people to download.

Some of the benefits of establishing a community group (local flood action group) included:

---

<sup>28</sup> National Flood Forum: emergency flood kit - <https://nationalfloodforum.org.uk/about-flooding/preparing/emergency-flood-kit/>

<sup>29</sup> Environment Agency personal flood plan checklist and flood warnings - <https://www.gov.uk/government/publications/personal-flood-plan>

<sup>30</sup> The Flood Hub website - <https://thefloodhub.co.uk/>

- Single point of contact (SPOC)
- Creating a community emergency plan<sup>31</sup>
- Clear roles and responsibilities
- Closer working and information sharing with Risk Management Authorities
- Constituted groups can access funding

The agency provides 'walkovers' to groups upon request. This provides groups with the opportunity to raise any issues and explain their priorities and concerns with the agency for their local area. From the notes made during these 'walkovers', an issues and actions log is created along with A-Z style grid maps detailing work to be finished and work completed.

On issuing flood warnings the group heard how one member of staff in the Met Office was engaging with some of the local flood action groups to notify them of severe weather alerts and this was working well.

United Utilities also provided information, advice and guidance to schools and with local flood action groups.

Following the presentation from the agency the group agreed that a scrutiny inquiry session on the future of flood action groups be organised. A copy of the findings report from this session is available on the county council's website<sup>32</sup>.

## Emergency planning and response

Following the inquiry session with local flood action groups the following matters were drawn out from the findings for further investigation with the county council's Emergency Resilience Team, emergency services, risk management authorities and utility companies:

- Flooding Incidents
  - Planning for Emergencies
  - Chain of Command
  - Roles and Responsibilities
- Vulnerable People Identification
- Emergency Centre Locations
- Community Based Emergency Plans

<sup>31</sup> Environment Agency community flood plan template and guidance - <https://www.gov.uk/government/publications/community-flood-plan-template> - [www.gov.uk/government/publications/flood-plan-guidance-for-communities-and-groups](https://www.gov.uk/government/publications/flood-plan-guidance-for-communities-and-groups)

<sup>32</sup> The future of Flood Action Groups in Lancashire findings reports - <http://council.lancashire.gov.uk/ieListDocuments.aspx?CId=1396&MId=9487&Ver=4>

Planning and response to incidents involved working with multi agencies to jointly assess risks that may impact on Lancashire's residents and therefore not one agency had the sole responsibility for this. The focus of any response was the activation of plans and not the declaration of an emergency.

The group explored whether processes had changed with emergency response in relation to the November 2017 flooding incidents in Lancaster. Following a review of procedures the Lancashire Resilience Forum rolled out training to assist duty officers in their confidence to activate plans out of hours. However a major contributor to the lack of response in this particular instance related to the point that agencies did not know the flooding had affected over a thousand properties. This information only came to the fore some weeks after the event and related to people who did not report to anybody that their property had been flooded. It was only through the Section 19 investigation that the true number of properties affected became known. The response on the night was in response to what was known that night.

The incident did however trigger United Utilities to declare a major incident within its organisation as around 400 calls were made within a specific timeframe triggering their own incident management processes. The learning for them was how to get their message across to other agencies.

The fire and rescue service had identified 23 sites throughout Lancashire which were considered rapid catchment areas and attached flood tactical plans to those sites. The tactical plan would enable the service on receipt of a warning to despatch staff on the ground in those areas to give people advanced warnings and advice. The service had also increased its number of water rescue teams and trained them on water incident management.

Electricity North West confirmed that while a number of flood mitigation works had already been carried out on assets and infrastructure across Lancashire, following the floods in 2015 the Environment Agency had changed its guidelines for what was now considered to be appropriate. Since then Electricity North West was working with the Fire and Rescue Service and the Environment Agency to procure flood walls, sandbags and additional pumps to protect assets and infrastructure. Electricity North West also made use of temporary defences and equipment contained in 'flood cubes' for use across their area.

It was noted that local flood/community groups know where sub-stations and pumping stations are situated and are willing to volunteer their time to mitigate any threat (such as surface water) to those assets. It was highlighted that a prepared plan of communication and action helped.

There was no chain of command in an emergency situation, rather a chain of co-ordination which was reflected as a shared understanding across the agencies whereby no one organisation could direct the resources of another. Agencies use the JESIP (Joint Emergency Services Interoperability Principles) models and principles<sup>33</sup> for multi-agency working, while each organisation had its own internal chain of command through respective management structures.

---

<sup>33</sup> Jesip website - <https://www.jesip.org.uk/home>

While the roles and responsibilities of the police, fire and rescue, ambulance service and local authorities were discussed, it was highlighted that all local authority staff who could be involved in supporting the emergency services had known skill sets and responsibilities which were strictly respected and adhered to.

The Civil Contingencies Act 2004 states that any agency can lead the response to an emergency, though predominantly it's normally the police that lead and co-ordinate the multi-agency response. It was noted the majority of people who began to experience a flood event would ring 999 for help. These calls came through to the police who had the responsibility to co-ordinate the response. Calls through to 101 would also transfer to Lancashire Police Headquarters where 999 calls were taken.

When an incident moved into the recovery phase, it had to be the local authority that took the lead. Depending on the circumstances it could be the county council (if more than one district affected), district or unitary authority that would take the lead.

The identification of vulnerable people was a challenge and due to the diverse definition of 'vulnerable', it was highlighted that it must be accepted there would no guarantee that all vulnerable people would be identified within a specific area. A list of vulnerable people does not exist and the expectation of creating one cannot be met. However, the local authority was aware of which organisations retained vulnerable people information such as Electricity North West having information on those people who needed power to run machinery for kidney dialysis and the county council for those who received social care. What they did not have access to was information relating to those people who were recently discharged from hospital that aren't receiving social care that the county council did not know about, or those who were recently bereaved. On the latter point it was highlighted that the community could be aware of such circumstances.

Feedback from communities on emergency/evacuation/rest centres (somewhere safe for the community to evacuate to) for flooding incidents was that they were in the wrong place, the wrong type or that it took too long to organise.

Fixed emergency centres were predominantly located around fixed site risks. Working with district councils three levels of emergency centres (county, district and community) had also been identified throughout the county. It was highlighted that following Storms Desmond and Eva, officers were changing their approach to evacuation services by taking the care to the people as opposed to taking the people to the care. It was emphasised that during recent flood incidents, the majority of people wanted to remain in their own homes or to congregate in their local community centre or local pub. This was highlighted during recent floods at Whalley and Rivington where three evacuation centres were opened up (during Storm Desmond) where nobody turned up, but a couple of hundred people had gone to their local community hall. The lack of provision for pets such as crates at emergency centres was identified. Not all people wanted to leave their pets at home and therefore stayed at home with them because they were not clear on provisions in place for pets at emergency centres.

The importance of working with communities during the recovery phase and not dictating to them was emphasised. Building resilience was key, in particular identifying what tools people would need to help themselves in the first instance and/or provide the county council with the information it needs to inform its response. It was acknowledged that since Storms Desmond and Eva and flooding events in Lancaster there had been a push for more local flood action groups. However, from an emergency planning perspective, it was reported that the county council were attempting to influence such groups into becoming Community Emergency Groups to cover a multitude of purposes rather than being risk specific groups.

While parish and town councils did not have a statutory role in an emergency situations, they were viewed as a gateway to other community related groups that could possibly take on a community emergency role. There was a significant gap in the east of the county for such groups to take on this agenda and support the county council in its work. The Emergency Resilience Team was willing to work with local flood action groups to develop local plans/impact assessments and train people up especially where there was a known flood risk. What they didn't want was communities working in isolation and putting themselves at risk or highway users at risk by the misplacement of signs – in particular if the route closed affected a strategic route for emergency services. The message was about working together and being prepared before an event.

On keeping community groups active it was suggested that refreshing local emergency plans and adding realism to the situation by regularly testing out those plans every three months would help to harness the energy and maintain awareness especially as flooding may only occur years apart. Flood action groups would be limited to a small number of test scenarios, whereas community emergency groups could test out a range of scenarios.

Links were being established with schools and uniformed groups (guides, scouts et al) to drive the resilience message across to children and young people. In addition the team was looking at the possibility of introducing the Duke of Cornwall Community Safety Award<sup>34</sup> to the area.

'In the know' webpages also provided information on preparing yourself; preparing your business and preparing your community<sup>35</sup>.

<sup>34</sup> Duke of Cornwall Community Safety Award webpage - <https://www.cornwall.gov.uk/community-and-living/cornwall-fire-and-rescue-service-homepage/about-us/what-we-do/community-safety-and-localism/community-initiatives/community-safety-award/>

<sup>35</sup> The Lancashire Resilience Forum emergency information webpage - <https://www.stayintheknow.co.uk/EmergencyInfo>

## Conclusions

It's clear that risk management authorities face a number of challenges from adopting drainage, highways and open spaces to discharge behaviours and permitted development rights when carrying out their statutory obligations to manage flood risk in the area, notwithstanding nature and the dense population of the North West.

The county council's role as lead local flood authority is new, emerging, complex and under resourced. It was felt that the county council in conjunction with risk management authorities should define its role and review the possibility of devolving powers and identifying opportunities for joint working. In addition there are a number of organisations such as Network Rail, Highways England, the Canal and Rivers Trust among others who benefit from the management of water levels and should be designated as risk management authorities.

A number of weaknesses were identified through the review in particular the delivery and adoption of drainage including sustainable drainage systems; the right of connection and developers not signing Section 104 Agreements; water companies not being statutory consultees on planning applications; and the lack of internal drainage boards across Lancashire. Other weaknesses included the seemingly free reign to carry out works such as culverting and altering watercourses without consent. There's also a mis-match of design standards which conflict with different drainage assets and therefore a need to think of drainage networks in an integrated way. Similarly there was no joined up thinking in that well-drained agricultural land would lead to well-drained urban systems as well.

All risk management authorities were felt to be missing a resource on delivery and this was perhaps partly reflected when local residents had chosen to establish a local flood action group following a flood event to progress actions and influence solutions. It was felt that the county council should produce a guide on how to establish a flood action group and to have this accessible from its website as a minimum, but also shared with all county councillors, risk management authorities, Parish and Town Councils, Council for Voluntary Services and libraries across Lancashire. The guide should also feature a template constitution.

The flow of water knows no boundaries and neighbouring flood action groups could be in the process of resolving a problem that extends beyond their area or applying for funding for a specific project that could benefit the wider area. It's clear there is a need for flood action groups to connect not just with each other, but also with their local Parish or Town Council (where these exist). Local Parish and Town Councils could provide accountancy services and access to a bank account and in some cases a parish lengthsman. There's strength in numbers so pooling resources at grass roots level/with Parish and Town Councils could help strengthen applications for funding and ease any burden with processes, establishing connections, building relationships, sharing news, progressing matters or even developing or amending emergency plans.

There's also merit in sharing knowledge and experience between flood action groups. It may be that an official forum should exist for representatives of flood



action groups and risk management authorities to meet with each other on at least a yearly basis whether it be in the format of a conference, workshop, appreciative inquiry or symposium. Or alternatively this could be facilitated by the county council's scrutiny function via the External Scrutiny Committee which has been delegated the statutory function to scrutinise flood risk management.

Good lines of communication and education are important for all organisations involved in flood risk management including flood action groups to flourish, and the county council should consider revising its Flooding in Lancashire website in collaboration with all risk management authorities and Newground to help inform and enable people to understand the various aspects of flood risk management. The review also identified that the rules, regulations and exemptions for obtaining licences to carry out work on land and the terminology used was felt to be confusing and that landowners often approached the wrong organisation to obtain a licence. A revised website should also feature a dedicated section for farmers and landowners.

Whilst the technical, commercial and sensitive nature of the business considered at Making Space for Water (MSFW) meetings was acknowledged during the scrutiny inquiry session, there was a consensus that each MSFW should embrace local knowledge and independent views through engagement with flood action groups. This could be in the format of a slot on each agenda for questions and representations to be formally submitted by flood action groups for formal response.

Obtaining local intelligence is key to gathering a more complete picture of infrastructure, issues and the flow of water in any given area. Walk-arounds with the Environment Agency are seen as a crucial mechanism that should be offered to flood action groups as a minimum; notwithstanding the need to formalise the offer and expand to include the involvement of relevant risk management authorities and related beneficiaries.

It was appreciated that some representatives of flood action groups did not wish to have powers delegated to them. However, it was recognised that some people had a desire to take on a certain level of responsibility particularly in relation to road closures. It's possible this desire was born out of a withdrawal of service from the police in some parts of the county and the barriers placed by the county council's highways team in following health and safety advice and legislation.

## Recommendations

This report reflects the views and recommendations of Overview and Scrutiny. It does not necessarily reflect the views of the county council. In many cases, suggestions are made for further consideration to be given to issues, and this would need to include a full assessment of the legal and financial risks and implications.

The task and finish group recommends that the Cabinet Member for Technical Services, Rural Affairs and Waste Management and where applicable the Cabinet Member for Highways and Transport give consideration to:

### **In the short term;**

1. Collaborating with all Risk Management Authorities, local Flood Action Groups and other beneficiaries to define the role and responsibilities of the Lead Local Flood Authority and all Risk Management Authorities in Lancashire and to publicise this accordingly.
2. Increasing staffing levels within the county council's Flood Risk Management Team to support the need for a resource on service delivery for the people of Lancashire and to explore joint working opportunities with all Risk Management Authorities, including possible agency arrangements with district councils.
3. Collaborating with all Risk Management Authorities and Newground Community Interest Company to develop the county council's Flooding in Lancashire webpages and the Floodhub Lancashire webpages and provide simplified advice, information and signposting in relation to the role and purpose of the county council as LLFA; how to form a local flood action group; riparian ownership and responsibilities; rules, regulations and exemptions for obtaining licences to carry out work; funding and dedicated webpages for specific flood events whilst being mindful of The Flood Hub's website content.
4. Formalising and maintaining a central register of local Flood Action Groups across Lancashire and to make accessible through The Flood Hub website via all Risk Management Authorities in Lancashire. In addition to publicise the register with the local MET Office and other pertinent organisations.
5. Creating a culvert policy with a view to it being adopted by all district councils in Lancashire as a supplementary planning document.
6. Writing to the Secretary of State for Environment, Food and Rural Affairs to request that Network Rail, Highways England, Canal & River Trust, Limited Companies appointed by Ofwat (New Appointments and Variations) and property management companies become Risk Management Authorities. In addition to give consideration to request district councils in Lancashire to develop relationships with those organisations and to invite them to future



Making Space for Water meetings and any other flood risk management related events and meetings.

7. Collaborating with the North West Regional Flood and Coastal Committee in writing to the Secretary of State for Housing, Communities and Local Government to request that right of connection, mandatory adoption and water companies as statutory consultees on planning applications be reviewed.
8. Writing to the Secretary of State for Housing, Communities and Local Government expressing concern that approved surface water drainage provisions including SuDS are not being implemented within developments as approved through the planning process, and that additional resources or legal provisions are required so that implementation of surface water drainage systems within new developments including SuDS can be properly monitored and enforced.
9. Writing to the Secretary of State for Environment, Food and Rural Affairs to consider publishing consistent guidance on when flood resilience grants would be made available to flooded homes and businesses for the installation of property resilience measures.
10. Engaging with United Utilities to agree a mechanism for receiving advice on SuDS that are planned in a particular application that might be at a level to be adopted.
11. Promoting the educational programme established by United Utilities via the Lancashire County Council Schools' Portal.

#### **In the medium term;**

1. Collaborating with all Risk Management Authorities to formalise the walk-around offer currently offered in a limited manner within the Environment Agency and to notify all local Flood Action Groups of its launch.
2. Promoting the flood risk management pre-application service.
3. Producing a guide on how to setup a local Flood Action Group to enable those people who wish to do so and for existing groups to flourish. It's suggested that the guide should include a template constitution; advice on creating emergency plans and who to share these with; key contacts and advice on who to build working relationships with and examples of what funding could be used for and for the guide to be publicised and shared with all tiers of councils and councillors, Risk Management Authorities and libraries throughout Lancashire.

4. The flood risk management team assessing every project for the scope to include upstream storage and increasing natural flood risk management activities.
5. Providing maximum surface water attenuation for new highways sponsored by Lancashire County Council through the implementation of tree pits and other attenuation features.
6. Reviewing how powers can be delegated to enable local Flood Action Groups to place road closure and other related signage on the highways in the event of a flood.
7. Exploring opportunities with the Fire and Rescue Service to embed a flood preparedness element to their existing fire safety checks in homes.
8. Writing to all district councils in Lancashire to request that all future agendas for Making Space for Water meetings include an opportunity for local Flood Action Groups to address those meetings and raise any issues of concern; and to publicise dates of all future meetings on their websites.
9. Writing to all Risk Management Authorities to take steps to:
  - a) Enable local Flood Action Groups to contribute a local touch to funding applications for large scale projects submitted by them.
  - b) Consult with local Flood Action Groups as an essential step in the decision making process on flood risk management project planning.
10. Holding an annual forum/conference/workshop/scrutiny inquiry or symposium to invite and bring together all the Risk Management Authorities and local Flood Action Groups across Lancashire to discuss flood risk management and preparedness matters. This could be facilitated by the External Scrutiny Committee in its obligation to scrutinise flood risk management on an annual basis.
11. Exploring opportunities to utilise social media platforms, 'In the Know' alerts or other real-time communication sources to provide preparedness and action messages around flood and weather warnings, successes and post-event advice supplementary to any MET Office forecast, warnings and advice issued.
12. Collaborating with all Risk Management Authorities' communications teams and Newground Community Interest Company to explore opportunities to display flood resilience information where there is high foot fall in public spaces and buildings; via social media platforms.
13. Reviewing accessibility of emergency respite centres and other activities taking account of children and pets.

**In the long term;**

1. Taking steps to integrate culvert locations including those identified under rights of way within the county council's Highways Asset Management System (HAMS). Should no solution be found, to then consider the implementation of an alternative web application/software suitable for the task and capable of integrating with HAMS.
  - a) Funding a temporary post to support the recording of culvert location data into HAMS.
2. Collaborating with the Country Land and Business Association (CLA) and the National Farmers' Union (NFU) to encourage their members from Lancashire to report locations of any known (historic) culverts to assist the county council in developing its flood risk asset register. This could be carried out on a district by district basis.
3. Collaborating with United Utilities and district councils to find suitable and reliable mechanisms for enforcing current regulations on impermeable paving of front gardens.
4. Exploring the possibility of establishing shared or pooled budgets for contribution by Risk Management Authorities on complex flood risk management projects as and when needed.
5. Exploring the possibility of a shared casework system to which all Risk Management Authorities could access and contribute to.
6. Where appropriate encouraging relevant district councils to establish Internal Drainage Boards should the Environment Bill 2019 receive Royal Assent.

**The task and finish group is grateful for the support and advice of those who provided information and evidence to support its work.**

## Glossary of terms and abbreviations

Culvert	A tunnel carrying a stream or open drain under a road or railway.
Discharge behaviours	A phrase used by United Utilities to highlight inappropriate actions of residents and businesses when flushing and pouring materials.
FIAG	Flood Action Group - community groups who work with the RMAs to find ways to reduce flood risk and raise awareness of flood risk to the wider community.
Flood cubes	Special equipment that Electricity North West stores in 'flood cubes' at strategic locations throughout the North West that can be delivered to sites in the area to help protect substations.
Groundwater	Water held underground in the soil or in pores and crevices in rock.
Gully (highway)	A highway gully is a large pot in the ground covered by a metal grid and is usually found at the edge of a road.
IDB	Internal Drainage Board - a local public authority that manages water levels. They are an integral part of managing flood risk and land drainage within areas of special drainage need in England and Wales.
LLFA	Lead Local Flood Authority – LLFAs are county councils and unitary authorities. They lead in managing local flood risks (i.e. risks of flooding from surface water, ground water and ordinary (smaller) watercourses). This includes ensuring co-operation between the Risk Management Authorities (RMA) in their area.
LPA	Local Planning Authority – a function carried out by unitary authorities or by district/borough/city councils in two tier areas. This is not a function of Lancashire County Council.
MSFW	Making Space for Water – district/borough level meetings attended by technical officers from all RMAs to review progress with flooding hotspots in need of joint investigations, and any more significant works of joint interest.
NAV	New appointments and variations (NAVs) are limited companies which provide a water and/or sewerage service to customers in an area which was previously provided by the incumbent monopoly provider.
Ofwat	The economic regulator of the water sector in England and Wales.

Riparian owner	A riparian owner is someone who has any watercourse within or adjacent to any boundary of their property. Where a watercourse is sited between two or more property boundaries each owner may be equally responsible. Riparian owners are responsible for maintaining the river bed and banks within their section of the watercourse. It is their duty to work towards minimising pollution and preventing obstruction to the water flow.
RMA	<p>Risk Management Authority i.e.</p> <ul style="list-style-type: none"> <li>• Environment Agency</li> <li>• Lead Local Flood Authority i.e. Lancashire County Council</li> <li>• District/Borough Councils (x12 in Lancashire)</li> <li>• Coastal protection authorities i.e. Lancaster, West Lancashire, Wyre and Fylde Councils</li> <li>• Water and sewerage companies i.e. United Utilities</li> <li>• Internal Drainage Boards i.e. Earby and Salterforth IDD (Internal Drainage District)</li> <li>• Highways authorities i.e. Lancashire County Council</li> </ul>
Section 19 report	<p>A statutory duty on the LLFA to investigate flooding incidents and to publish a report identifying which risk management authorities had a function relating to the incidents, and whether those functions have been discharged yet.</p> <p><a href="https://www.legislation.gov.uk/ukpga/2010/29/section/19">https://www.legislation.gov.uk/ukpga/2010/29/section/19</a></p>
SuDS	Sustainable Drainage Systems (SuDS) are often regarded as a sequence of management practices, control structures and strategies designed to efficiently and sustainably drain surface water, while minimising pollution and managing the impact on water quality of local water bodies.
Trash screen	A structure placed on a watercourse to collect debris brought down by the watercourse.
Tree pit	The underground soil area for tree roots (often with root barriers to direct roots downwards), and the surface treatment for pedestrian safety, and irrigation.
Urban creep	The loss of permeable surfaces within urban areas creating increased runoff which contributes to flooding and other problems.
Water UK	A trade association which represents the major water companies of the United Kingdom.
Watercourse	A brook, stream, or artificially constructed water channel.

## Websites

1. Prepare for flooding - <https://www.gov.uk/prepare-for-flooding/future-flooding>
2. Local Government Association - Managing flood risk: roles and responsibilities - <https://www.local.gov.uk/topics/severe-weather/flooding/local-flood-risk-management/managing-flood-risk-roles-and>
3. The Flood Hub - <https://thefloodhub.co.uk/>
4. North West Regional Flood and Coastal Committee - <https://www.gov.uk/government/groups/north-west-regional-flood-and-coastal-committee>
5. Lancashire Police - <https://www.lancashire.police.uk/campaigns/flooding-and-extreme-weather/>
6. Lancashire Fire and Rescue - <https://www.lancsfirerescue.org.uk/safety/be-prepared/flooding/>
7. Electricity North West - <https://www.enwl.co.uk/advice-and-services/flooding-advice/>
8. United Utilities - <https://www.unitedutilities.com/emergencies/got-a-problem/flooding/>
9. Yorkshire Water - <https://www.yorkshirewater.com/help-and-advice/flooding/>

**NB:** links provided in the report were correct at the time of publication.



## Appendices

### A – Understanding different sources of flooding (extract from Environment Agency guidance: Flooding – minimising the risk October 2012)

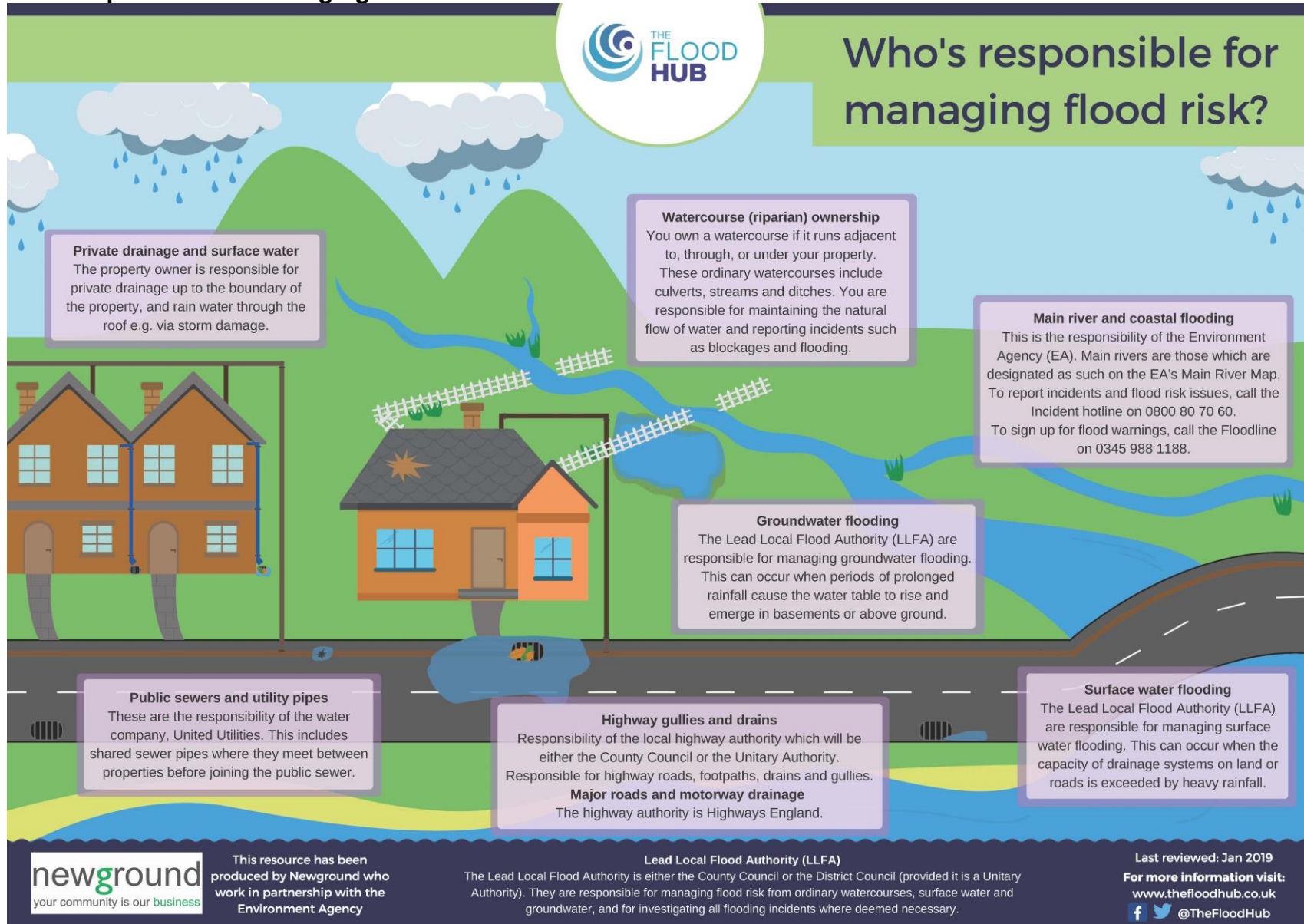
"Floods can happen anywhere at any time, caused by rising ground water levels, burst water drains, rainwater running off hillsides as well as flooding from rivers and the sea.

Even if you live miles away from the coast or a river, there's still a chance flooding could affect you.

The most common sources of flooding are:

- **River flooding** happens when a watercourse cannot cope with the water draining into it from the surrounding land. This can happen, for example, when heavy rain falls on an already waterlogged catchment.
- **Coastal flooding** results from a combination of high tides and stormy conditions. If low atmospheric pressure coincides with a high tide, a tidal surge may happen which can cause serious flooding.
- **Surface water flooding** happens when heavy rainfall overwhelms the drainage capacity of the local area. It is difficult to predict and pinpoint, much more so than river or coastal flooding.
- **Sewer flooding** happens when sewers are overwhelmed by heavy rainfall or when they become blocked. The likelihood of flooding depends on the capacity of the local sewerage system. Land and property can be flooded with water contaminated with raw sewage as a result. Rivers can also become polluted by sewer overflows.
- **Groundwater flooding** results from water levels in the ground rising above surface levels. It is most likely to occur in areas situated over permeable rocks, called aquifers. These can be extensive, regional aquifers, such as chalk or sandstone, or may be more local sand or river gravels in valley bottoms underlain by less permeable rocks. This is not a significant source of flooding in Wales.
- **Reservoir flooding.** Some reservoirs hold large volumes of water above ground level, contained by walls, or 'dams'. Although the safety record for reservoirs is excellent, it is still possible that a dam could fail. This would result in a large volume of water being released very quickly.

## B – Who's responsible for managing flood risk?



**THE FLOOD HUB**

### Who's responsible for managing flood risk?

**Private drainage and surface water**  
The property owner is responsible for private drainage up to the boundary of the property, and rain water through the roof e.g. via storm damage.

**Watercourse (riparian) ownership**  
You own a watercourse if it runs adjacent to, through, or under your property. These ordinary watercourses include culverts, streams and ditches. You are responsible for maintaining the natural flow of water and reporting incidents such as blockages and flooding.

**Main river and coastal flooding**  
This is the responsibility of the Environment Agency (EA). Main rivers are those which are designated as such on the EA's Main River Map. To report incidents and flood risk issues, call the Incident hotline on 0800 80 70 60. To sign up for flood warnings, call the Floodline on 0345 988 1188.

**Groundwater flooding**  
The Lead Local Flood Authority (LLFA) are responsible for managing groundwater flooding. This can occur when periods of prolonged rainfall cause the water table to rise and emerge in basements or above ground.

**Public sewers and utility pipes**  
These are the responsibility of the water company, United Utilities. This includes shared sewer pipes where they meet between properties before joining the public sewer.

**Highway gullies and drains**  
Responsibility of the local highway authority which will be either the County Council or the Unitary Authority. Responsible for highway roads, footpaths, drains and gullies.

**Major roads and motorway drainage**  
The highway authority is Highways England.

**Surface water flooding**  
The Lead Local Flood Authority (LLFA) are responsible for managing surface water flooding. This can occur when the capacity of drainage systems on land or roads is exceeded by heavy rainfall.

**newground**  
your community is our business

This resource has been produced by Newground who work in partnership with the Environment Agency

**Lead Local Flood Authority (LLFA)**  
The Lead Local Flood Authority is either the County Council or the District Council (provided it is a Unitary Authority). They are responsible for managing flood risk from ordinary watercourses, surface water and groundwater, and for investigating all flooding incidents where deemed necessary.

Last reviewed: Jan 2019  
For more information visit:  
[www.thefloodhub.co.uk](http://www.thefloodhub.co.uk)  
f @TheFloodHub

**C – Who does what during a flood?** (extract from Environment Agency guidance: Flooding – minimising the risk October 2012)

"This lists the principle actions of each organisation. It may not always be possible for all actions to be carried out during a flood event.

Responding organisations have limited resources so may not be able to provide assistance in all circumstances. In such cases the owners and occupiers need to be aware that they should make their own arrangements to protect their property from flooding. This should be clearly stated in the plan.

**Environment Agency**

- issues flood warnings for flooding from rivers, the sea and groundwater;
- receives and records details of flooding incidents;
- monitors the situation and advises other organisations;
- deals with emergency repairs and blockages on main rivers and own structures;
- responds to pollution incidents;
- advises on waste disposal issues.

**County Council and Unitary Authority**

- co-ordinates emergency arrangements;
- maintains safe conditions on the roads;
- puts flood warning signs on the highway;
- organises road closures and traffic diversions;
- clears blockages on highway drainage systems;
- may take action to protect property from flooding by water from the highway where there is a failure of the highway drainage system.

**Lead Local Flood Authorities (LLFA)**

- leads the co-ordination of flood risk management in their areas;
- develops local flood risk management strategies for local sources of flooding;
- manages surface water and groundwater flooding;
- maintains a register of structures or features which have a significant effect on flood risk in their area;
- investigates flooding incidents in its area.

**District Council**

- co-ordinates emergency response for its own area;
- issues flood warnings (by local agreement with Environment Agency);
- provides emergency assistance including providing sandbags;
- clears blocked watercourses (Land Drainage Act powers);
- deals with environmental health issues ,including pollution;
- clears blocked road channels and gully gratings and street cleaning;
- runs emergency planning support groups.

**Town and Parish Council**

- issues flood warnings (by local agreement with Environment Agency);
- some distribute sandbags.

### **Police**

- takes an overall co-ordination role during an incident.

### **Fire and Rescue Service**

- responds to all emergency incidents as required;
- assists the public where a need is identified and the use of Fire Service personnel and equipment is required.

### **Water companies**

- clears blockages in public sewers;
- may take action to protect property from flooding by water from the public water mains or discharges from the public sewerage systems.

### **Electricity, gas and telecommunication companies**

- attends to emergencies relating to their service at properties where life is at risk as a result of flooding;
- attends to flooding emergencies at their own serviced installations.

### **Large industrial companies**

- protects own premises and installations;
- provides resources which could be hired.

### **Property owners**

- moves to a safe area if life at risk;
- prevents water from entering property if possible;
- switches off electricity and gas supplies at mains;
- moves valuable possessions above areas liable to be flooded.

### **Flood plan co-ordinator**

- is aware of the current situation;
- contacts flood wardens or volunteers and advises on actions to prepare for flooding;
- liaises with the local authority, Environment Agency and other organisations;
- updates the flood wardens if the situation changes;
- maintains emergency contacts.

### **Flood wardens/volunteers**

- acts on the advice received from the flood plan co-ordinator or their assistant;
- puts flood protection measures in place;
- helps and advises vulnerable people and helps move them to safety early if required;
- informs the community of the situation and advises them to prepare by moving cars, putting sandbags or floodboards in place etc."