

JBA consulting

Appendix D

D.1 Planning Framework and Flood Risk Policy

D.1.1 EU Floods Directive and the Flood Risk Regulations

The European Floods Directive (2007) sets out the EU's approach to managing flood risk and aims to improve the management of the risk that floods pose to human health, the environment, cultural heritage and economic activity. The Directive was translated into English law by the Flood Risk Regulations (2009) which require Lead Local Flood Authorities (LLFA) and the Environment Agency (EA) to produce Flood Risk Management Plans (FRMP).

The Directive puts in place a six-year cycle of producing PFRAs with the aim of identifying significant flood risk areas; preparing flood hazard and risk maps; and preparing FRMPs. The first six-year cycle was completed in December 2015 and the second six-year cycle is currently underway.

PFRAs should cover the entire LLFA area for local flood risk (focusing on ordinary

watercourses, surface water and groundwater flooding). Where significant Flood Risk Areas are identified using the national approach (and locally reviewed), the LLFA is then required to undertake flood risk hazard mapping and to produce FRMPs. FRMPs are also completed for each RBD in England and Wales by the EA.

The FRMP should consider objectives for flood risk management (reducing the likelihood and consequences of flooding) and measures to achieve those objectives. Significant flood risk areas were not identified in the Lancaster authority area through the PFRA. A FRMP has however been completed by the EA for the North West RBD. See Section D.1.4.

Although the UK officially exited the EU in



Figure 1: EU Floods Directive

January 2020, the Flood Risk Regulations will still stand, having been enshrined in English law. Therefore, at the time of writing, it is envisaged that the six-year cycle discussed above will remain in place

D.1.2 Lancashire Preliminary Flood Risk Assessments (PFRAs) 2011 and 2017¹

The first cycle PFRA produced by Lancashire County Council (LCoC), as LLFA, was submitted to the EA in June 2011. For the purposes of the PFRA, significant flood risk areas were identified were flood risk was affecting at least 30,000 people or 150 critical services. The 2011 PFRA investigated 25 past flood events but found that there was insufficient evidence to identify any that could be considered to have had 'significant harmful consequences'. The analysis of surface water, using the EA's now superseded Areas Susceptible to Surface Water Flooding (AStSWF) dataset, revealed that up to 9,300 properties could be at risk. However, this did not exceed the threshold of 30,000 required for it to be identified as flood risk areas. LCiC was therefore not required to produce flood hazard maps, flood risk maps and FRMP for that area. The PFRA still recognised the need to produce a Local Flood Risk Management Strategy (LFRMS) for the area however, as part of the councils' obligations under the Flood and Water Management Act (2010).

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/698402/PFRA_L ancashire_County_Council_2017.pdf

The second cycle PFRA in 2017 reviewed the 2011 PFRA and was published as an addendum. The 2017 update used all relevant current flood risk data and information and was agreed with the EA in December 2017.

The changes made to the PFRA for publication in 2017 were that the LLFA would work with Lancashire Resilience Forum partners through emergency planning and review exercises, as well as with Flood Risk Partnerships to contribute to a number of community resilience projects. Also, the understanding of 'significant flood risk' has developed as a consequence of information relating to actual flood events, climate change and long-term development. With learning from SFRAs, development is being directed away from areas of highest flood risk, and/or development proposals are being modified to ensure they are resilient and sustainable for the local conditions of natural and formal drainage. As in 2011, no flood risk areas have been identified in the Lancaster authority area.

D.1.3 Catchment Flood Management Plans (CFMPs)

The CFMPs were carried out by the EA in 2009 and were designed to establish flood risk management policies which will deliver sustainable flood risk management for the long term. The CFMPs were used by the EA to help direct resources to where there are areas of greatest risk.

The CFMPs contain useful information about how the catchments work, previous flooding and the sensitivity of the river systems to increased rainfall. The EA draws on the evidence and previous measures and proposals set out in the CFMPs to help develop the subsequent FRMPs for RBDs. The Lancaster authority area is within the North West RBD and is primarily within the Lune catchment. A small area is however within the Wyre catchment therefore the authority area is included within two CFMPs, namely the Lune CFMP² and the Wyre CFMP³.

Lune Catchment Flood Management Plan²

The plan sets out flooding issues within the Lune catchment. The upper reaches in the Yorkshire Dales and Howgill Fells are characterised by relatively steep watercourses, with narrow floodplains and fast flowing watercourses. Water levels of smaller tributaries of the Lune may rise quickly in response to sudden rainfall events, creating a surge of water running rapidly downstream. The plan highlights that flood risk is high within the Lune catchment, and that this risk is set to increase in the future as a result of climate change.

Wyre Catchment Flood Management Plan³

The Wyre CFMP highlights flooding issues within the catchment. The River Wyre extends from the upper, eastern part of the catchment, characterised by high ground and steep tributaries, resulting in a rapid runoff response following rainfall. The main sources of risk within the catchment are river and tidal flooding, with tidal risk remaining a key issue for the downstream reaches of the River Wyre and the tributaries directly entering the Wyre estuary in the lower catchment. The plan indicates that due to the existing defences that protect property and land, fluvial flood risk to the catchment is low.

² https://www.gov.uk/government/publications/lune-catchment-flood-management-plan

³ https://www.gov.uk/government/publications/wyre-catchment-flood-management-plan

D.1.4 Shoreline Management Plan (2011)⁴

The North West England and North Wales Shoreline Management Plan 2 (SMP2) provides an assessment of the risks associated with erosion and flooding at the coast and presents policies to help manage risks to people and the environment.

The SMP2 covers the shoreline between Great Orme's Head in North Wales up to the Scottish Border. This includes stretches between Rossall Point and Hodbarrow Point, which includes the Wyre, Lune, Kent, Leven and Duddon Estuaries within the LCiC administrative areas.

Policies applied to the coastline along the LCiC boundary include 'hold the line', 'no active intervention' and 'managed realignment'. Areas identified for managed realignment have been designated as 'hold the line' for the first epoch (20 years). This will allow studies to take place to determine their suitability, the full impact and the economics of the proposals with the hold the line policy in mind. These areas of shoreline should be prioritised for repairs and maintenance of existing defences to maintain the standard of protection.

D.1.5 Flood Risk Management Plans

Following on from the CFMPs, FRMPs are designed to set out the risk of flooding from rivers, sea, surface water, groundwater and reservoirs within each RBD and to detail how RMAs will work with communities to manage flood risk up to 2021 for the current cycle, at the time of writing.

Both the River Basin Management Plans (RBMP) and FRMPs have been developed by the EA in tandem to ensure that flood defence schemes can provide wider environmental benefits during the same six-year cycle. Both flood risk management and river basin planning form an important part of a collaborative and integrated approach to catchment planning for water.

The Lancaster authority area is covered within the North West FRMP, published by the EA in 2016⁵.

North West RBD FRMP, 2016

The North West RBD covers an area of 13,160 km² from Cumbria in the north to Cheshire in the south, with Lancashire, Greater Manchester and Merseyside included. The North West RBD comprises 12 management catchments which contain almost 7 million people.

The catchments in the North West RBD vary; some are very natural, while others have been significantly changed due to urbanisation or by artificially draining the land to improve agricultural production. Of the 7 million people living in the RBD, there are over 51,000 people at high risk of surface water flooding (more than a 3.33% AEP chance of being flooded in any year) and 31,000 people at high risk of flooding from rivers and the sea (more than a 3.33% AEP chance of being flooded in any one year).

Lune catchment

The Lune rises in the Howgill Fells to the north, flowing west to Tebay and southwest into Morecambe Bay where it drains to the Irish Sea with its lower reaches tidally influenced. The upper and middle reaches of the catchment are predominantly rural, whilst the lower reaches are more urban and industrial. In upland areas, the intensification of farming has changed the landscape, with woodland cover and scrub vegetation being replaced by meadow land including bracken and grasses. This change

⁴ https://www.gov.uk/government/publications/shoreline-management-plans-smps/shoreline-management-planssmps

⁵ https://www.gov.uk/government/publications/north-west-river-basin-district-flood-risk-management-plan

combined with soil compaction from livestock has led to reduced infiltration and increased surface runoff.

Tidal risk is the main source of flood risk, however many of the properties at tidal risk benefit from flood defences. Approximately 2,200 properties are potentially at tidal flood risk from a 0.5% annual probability event (APE), although most of these properties benefit from flood defences. There are approximately 500 properties at risk of flooding from rivers (fluvial flooding). By 2100, we estimate there will be 700 properties at risk of fluvial flooding due to the effects of climate change. Both fluvial and tidal risk will increase in the long term due to climate change.

Around 18,000 people are at risk of flooding from Rivers and the sea in the Lune Catchment, representing approximately 11% of the total population within the catchment. Approximately 4,500 non-residential properties are at risk of flooding in the Lune catchment. Approximately 30% of the agricultural land within the catchment is at risk of flooding from Rivers and the Sea.



Figure 2: Lune catchment (North West RBD FRMP Part B)

The North West RBD FRMP summarised various measures to help manage flood risk in the Lune catchment. Those that may apply to the Lancaster authority area include:

Preventing risk:

 Develop a planning policy to allow roll-back of caravan parks on eroding cliffs in order to manage the erosion risk and adapt to the changing coast. Requires consultation between the LPA and property owners.

Preparing for risk:

• Investigate the provision of emergency plans for residents of at-risk properties, for tourists staying in flood risk hotspots and at campsites such as in Caton and the Rawthey Valley.

- Create new Flood Warning Areas and consider promoting a self-help approaches for properties within the current and future River Keer floodplain.
- In conjunction with other Policy Areas in Morecambe Bay, and in consultation with Natural England, quantify coastal squeeze losses and gains of intertidal habitat within and adjacent to the internationally designated sites, taking account of SMP policies.
- Review risks and investigate opportunities to set back coastal defence lines in the medium term. Include investigation into the extent, nature and condition of the Pasture Lane Landfill site if a habitat creation opportunity is identified for the medium to long term. Confirm extent of managed realignment area, habitat gains by type and preferred technical approach to realignment.
- Consider needs for coastal adaptation and roll-back of assets at caravan sites and resilience or local property flood defences at isolated properties affected by no active intervention or managed realignment.

Protecting from risk:

- From 2020 onwards, investigate the feasibility of setting-back defences from the River Keer to the village of Warton. Agricultural land currently behind the defences could be allowed to flood and given over to habitat restoration. An environmental study should be carried out to assess the impact on any species or habitats as a result of setting back defences.
- Lower Lancaster, Skerton/Halton Low lying industrial estate that has been subject to inundation in 1995 & continues to be at risk. Scheme seeks to improve by raising existing flood banks or constructing new flood walling.
- River Conder at Galgate A 1km reach of river defences at Galgate protecting 150 properties is deteriorating. A Flood Risk Reduction Feasibility Report was produced in 2010 highlighting that the risk of wall failure is greater than thought previously. Urgent repairs were carried out in 2010/11 to give a maximum of five years before further works would be required. The scheme would involve replacement of these defences to required standards.
- Promote natural methods of managing flood risk and improving water quality and habitats at identified locations in the Lune catchment: Investigate potential collaborative work for: blocking of grips/gullies on peat moorland, including Whernside SSSI, Ingleborough SSSI and other areas, gill planting, including on the River Rawthey, River Wenning. Riparian woodland in the middle and lower stretches of tributaries of the River Wenning and River Greta investigation of meander creation and floodplain restoration on the River Lune near Newbigginon-Lune. See Working with Natural Processes section of the Main Report.

Wyre catchment

The Wyre catchment is situated on the West coast between Ribble and Lune catchment areas. The Wyre catchment area is relatively rural, with urban development accounting for approximately 10% of the land use. Approximately 20% of the agricultural land within the catchment is at risk of flooding from rivers and the sea. Approximately 7,600 residential and commercial properties are at a 1% annual risk of fluvial flooding (from rivers) within the catchment; 90% of which are concentrated in the towns of Fleetwood, Cleveleys, Poulton-le-Fylde and Thornton.

In the future, it is estimated that over 9000 properties will be at risk from a 1% fluvial event after taking into account climate change. Communities within the Wyre catchment have experienced an increase in both severity and frequency of existing flooding problems and communities that have not flooded previously have been affected in recent years. It is likely that this pattern will continue with climate change.

Approximately 57,000 people are at risk of flooding from rivers and sea in the Wyre catchment, representing approximately 26.5% of the total population within the catchment. Approximately 4,000 non-residential properties and 20% of the agricultural land within the catchment is at risk of flooding from rivers and sea.



Figure 3: Wyre catchment (North West RBD FRMP Part B)

The North West RBD FRMP summarised various measures to help manage flood risk in the Wyre catchment. Those that may apply to the Lancaster authority area include: Prevention of risk:

• Investigate further flood storage opportunities, setting back of existing embankments, and land management changes in the policy unit to sustain current flood risk in the moderate to long term. This should be undertaken as

part of a strategy to identify options to mitigate for future increase in flood risk within the middle and upper catchment.

• Investigate and quantify habitat losses and creation potential to feed into future work. Subsequently identify and secure intertidal and dune habitat where necessary to compensate for any habitat losses in each epoch.

Preparation for risk:

• Investigate viability of managed realignment for habitat creation and flood storage, including consultation, modelling of impacts on estuary, and investigation of options for managing contamination risks.

It is noted in the FRMP that the identification of these measures is not a commitment to deliver them but that the need has been identified.

Wenning sub-catchment

The River Wenning is a rural tributary of the Lune draining from the western slopes of the Yorkshire Dales. There are a few villages in the catchment where properties are at flood risk. The nature of flood risk is particularly hazardous due to the fast responding and flowing rivers. There are a total of 140 properties at risk in the sub area from a 1% APE. The average depth of flooding to properties is typically less than a metre but is expected to increase by 0.5m by 2100 and the total number of properties at risk increase to 220.

D.1.6 Flood & Water Management Act

The Flood & Water Management Act (FWMA) was established in April 2010. It aims to improve both flood risk management and the way we manage our water resources.

The FWMA has created clearer roles and responsibilities and helped to define a more risk-based approach to dealing with flooding. This included the creation of a lead role for LAs, as LLFAs, designed to manage local flood risk (from surface water, groundwater and ordinary watercourses) and to provide a strategic overview role of all flood risk for the EA.

The content and implications of the FWMA provide considerable opportunities for improved and integrated land use planning and flood risk management by LAs and other key partners. The integration and synergy of strategies and plans at national, regional and local scales, is increasingly important to protect vulnerable communities and deliver sustainable regeneration and growth.

The FWMA gives risk management authorities (RMA) specific powers and duties for local flood risk management. A duty is something the RMA is legally obliged to do; a permissive power can be used at the RMA's discretion. All RMAs have a duty under Section 13 of the FWMA to cooperate with one another when exercising functions relating to flood and coastal erosion risk management.

Table 1-1 provides an overview of the key LLFA responsibilities as a RMA, under the FWMA.

Responsibility	Description	Implementation date
Local Flood Risk Management Strategy (LFRMS)	Under Section 9 of the FWMA, the LLFA has a responsibility to develop, maintain, apply and monitor a local strategy for flood risk management in its area. The local strategies should build on information such as national risk assessments and will use consistent risk-based	Final version produced 2013 (see Section D.5.1). Note the LFRMS will require updating to stay consistent with



Responsibility	Description	Implementation date
	approaches across different authority areas and catchments. The local strategy should not be secondary to the national strategy; rather it should have distinct objectives to manage local flood risks important to local communities.	the new National Strategy published September 2020
Comply with national strategy	The LLFA should comply with national flood and coastal risk management strategy principles and objectives in respects of its flood risk management functions.	Ongoing (see above)
Investigating flood incidents	Under Section 19 of the FWMA, the LLFA, on becoming aware of a flood in its area, has (to the extent it considers necessary and appropriate) to investigate and record details of "locally significant" flood events within its area. This duty includes identifying the RMAs and their functions and how they intend to exercise those functions in response to a flood event occurring. The responding RMA must publish the results of its investigation and notify any other relevant RMAs.	Ongoing
Asset register	Under Section 21 of the FWMA, the LLFA should maintain a register of structures or features, which it considers having a significant effect on flood risk, including details on ownership and condition as a minimum. The register must be available for inspection and the Secretary of State will be able to make regulations about the content of the register and records.	The Asset Register is an ongoing project with watercourse inspections being carried out when conditions are appropriate.
Works powers	Section 25 of the Act provides a LLFA with permissive powers to undertake works to manage flood risk from surface runoff, groundwater and on ordinary watercourses, consistent with the LFRMS.	Ongoing
Ordinary watercourse consents	Under Section 23 of the FWMA, the LLFA has a responsibility to deal with enquiries and determine watercourse consents where the altering, removing or replacing of certain flood risk management structures or features that affect flow on ordinary watercourses is required. It also has provisions or powers relating to the enforcement of unconsented works.	Ongoing
Cooperation and powers to request information	The LLFA must cooperate with other relevant authorities in the exercise of their flood and coastal erosion management functions.	Ongoing
Designation powers	The Act provides a LLFA with powers to designate structures and features that affect flooding or coastal erosion. The powers are intended to overcome the risk of a person damaging or removing a structure or feature that is on private land and which is relied on for flood or coastal erosion risk management. Once a feature is	Ongoing



Responsibility	Description	Implementation date
	designated, the owner must seek consent to alter, remove, or replace it.	
Contribution to sustainable development	The LLFA has a duty to contribute towards the achievement of sustainable development.	Ongoing
Drainage of the local highway network	The Highways Authority has a duty under the Highways Act (1980) to drain the local Highway network (not Trunk roads) of surface water where it creates a nuisance. Where drainage infrastructure is provided to assist in this duty then the Highways Authority must maintain it to be fit for purpose. Maintenance of roadside drainage ditches may be the direct responsibility of the Highways Authority or the adjacent landowner.	Ongoing
Emergency planning	A LLFA is required to play a lead role in emergency planning and recovery after a flood event.	Lancashire Resilience Forum (see Section 7.1.1 of the main report)
Community involvement	A LLFA should engage local communities in local flood risk management issues. This could include the training of community volunteers, the development of local flood action groups and the preparation of community flood plans, and general awareness raising around roles and responsibilities plans.	Various ongoing
Planning Requirements for SuDS	Sustainable Drainage Systems (SuDS) are a planning requirement for major ⁶ planning applications of 10 or more residential units or equivalent commercial development schemes with sustainable drainage. The LLFA is now a statutory planning consultee and it will be between the LPA and the LLFA to determine the acceptability of these proposed sustainable drainage schemes subject to exemptions and thresholds. Approval must be given before the developer can commence construction. Planning authorities should use planning conditions or obligations to make sure that arrangements are in place for ongoing maintenance of any SuDS over the lifetime of the development.	Ongoing

Table 1-1: Key LLFA responsibilities under the FWMA

⁷ http://www.legislation.gov.uk/ukpga/2010/29

⁶ For housing, development where 10 or more homes will be provided, or the site has an area of 0.5 hectares or more. For non-residential development it means additional floorspace of 1,000m2 or more, or a site of 1 hectare or more, or as otherwise provided in the Town and Country Planning (Development Management Procedure) (England) Order 2015.

D.2 Flood and water focused policies and plans

D.2.1 25 Year Environment Plan

This Plan sets out Government action to help the natural world regain and retain good health. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first. The Plan also sets out how Government will tackle the effects of climate change, considered to perhaps be the most serious long-term risk to the environment given higher land and sea temperatures, rising sea levels, extreme weather patterns and ocean acidification. The Plan aims to show that Government will work with nature to protect communities from flooding, slowing rivers and creating and sustaining more wetlands to reduce flood risk and offer valuable habitats.

Focusing on flood risk, Government has updated the national flood and coastal erosion risk management strategy for England which looks to strengthen joint delivery across organisations. In terms of funding, Government will look at current partnership arrangements ahead of a review of funding needs beyond 2021, seeking to attract more non-public sector investment, and make sure all relevant agencies are able to respond quickly and effectively to support communities if and when flooding does occur. The Plan states that the EA will use its role in statutory planning consultations to seek to make sure that new developments are flood resilient and do not increase flood risk.

For flood mitigation, Government will focus on using more natural flood management solutions; increasing the uptake of SuDS, especially in new development; and improving the resilience of properties at risk of flooding and the time it takes them to recover should flooding occur.

25 Year Environment Plan



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- Recovering nature and enhancing the beauty of landscapes
- Connecting people with the environment to improve health and wellbeing
- Increasing resource efficiency, and reducing pollution and waste
- Securing clean, productive and biologically diverse seas and oceans
- · Protecting and improving the global environment

Figure 4: Main goals and policy areas the Plan is intended to help work towards

D.2.2 Catchment partnership

The Catchment Based Approach⁸ (CaBA) embeds collaborative working at a river catchment scale to deliver cross cutting improvements to our water environments. The CaBA partnerships drive cost-effective practical delivery on the ground, resulting in multiple benefits including reduced flood risk and resilience to climate change and

⁸ https://catchmentbasedapproach.org/

directly supports achievement of many of the targets under the 25 Year Environment Plan.

Catchment partnerships are groups of organisations with an interest in improving the environment in the local area and are led by a catchment host organisation. The partnerships work on a wide range of issues, including the water environment but also address other concerns that are not directly related to river basin management planning.

The National Resilience Review will align closely with Defra's work on integrated catchment-level management of the water cycle in the Government's 25-year Environment Plan. Government's aspirations for the next cycle of planning (now to 2021) is for more integrated catchment planning for water, where Flood and Coastal Risk Management, nature conservation and land management are considered together.

Catchment partnerships relevant to LCiC include:

- Groundwork Lancashire
- Lune Rivers Trust, part of Natural Course
- Wyre Rivers Trust and Wyre Waters Catchment Partnership

D.2.3 Water Framework Directive, Water Environment Regulations and River Basin Management Plans

The purpose of the Water Framework Directive (WFD), which was transposed into English Law by the Water Environment Regulations (2003), is to deliver improvements across Europe in the management of water quality and water resources through RBMP. The Lancaster authority area is covered by the North West RBD RBMP⁹, managed by the EA and published in 2016.

Water quality and flood risk can go hand in hand in that flood risk management activities can help to deliver habitat restoration techniques. The EA is responsible for monitoring and reporting on the objectives of the WFD on behalf of Government. They work with Government, Ofwat, local government, non-governmental organisations (NGOs) and a wide range of other stakeholders including local businesses, water companies, industry and farmers to manage water¹⁰.

The second management cycle of the WFD¹¹ has begun and the second RBMPs were published in 2016, building upon the first set completed in 2009. RBMPs are designed to address the pressures facing the water environment in the river basin management plan districts and the actions that will address them. The plans describe objectives and measures required to protect and improve the water environment over the next 20 years and aim to achieve WFD targets from 2015 onwards to 2021, in the current cycle.

The RBMPs, like the FRMPs and CFMPs, are important documents relevant to the development of the SFRA. The SFRA should take into account the wider catchment flood cell aims and objectives and understand how it can potentially contribute to the achievement of them.

The main responsibility for LCiC as the LPA and LCoC as the LLFA, is to work with the EA to develop links between river basin management planning and the development of local authority plans, policies and assessments. In particular, the general programme of actions (measures) within the RBMP highlight the need for:

government-policy-water-quality#appendix-4-planning-for-better-water

 ⁹ https://www.gov.uk/government/publications/north-west-river-basin-district-river-basin-management-plan
¹⁰ https://www.gov.uk/government/publications/2010-to-2015-government-policy-water-quality/2010-to-2015

¹¹ http://ec.europa.eu/environment/water/water-framework/info/timetable_en.htm

- Strategic working with United Utilities (UU) to seek partnership opportunities for improved infrastructure management e.g. reduced Combined Sewer Overflows (CSOs);
- Water Cycle Studies (WCS) to promote water efficiency in new development through regional strategies and local development frameworks;
- Surface Water Management Plan (SWMP) implementation;
- Consideration of the WFD objectives (achieving good status or potential as appropriate) in the spatial planning process, including local development documents (LDD) and Sustainable Community Strategies; and
- Promotion of the wide scale use of SuDS in new development.

D.3 Planning legislation

D.3.1 White Paper: Planning for the Future, 2020

Launched by the Ministry of Housing, Communities and Local Government (MHCLG), the Planning for the Future White Paper¹² (August 2020) proposes a radical reform of the planning system in England to help to streamline and modernise the planning process, improve outcomes on design and sustainability, reform developer contributions and ensure more land is available for development where it is needed.

Consultation on the white paper ended 29 October 2020.

A Government press release on 6 August 2020^{13} sets out what the changes to the planning system will mean.

In summary (text taken from House of Commons Library¹⁴):

- Local communities will be consulted from the very beginning of the planning process. By harnessing the latest technology through online maps and data, the whole system will be made more accessible
- Valued green spaces will be protected for future generations by allowing for more building on brownfield land and all new streets to be tree lined
- Much needed homes will be built quicker by ensuring local housing plans are developed and agreed in 30 months down from the current seven years
- Every area to have a local plan in place currently only 50% of local areas have a plan to build more homes
- The planning process to be overhauled and replaced with a clearer, rules-based system. Currently around a third of planning cases that go to appeal are overturned at appeal
- A new simpler national levy to replace the current system of developer contributions which often causes delay
- The creation of a fast-track system for beautiful buildings and establishing local design guidance for developers to build and preserve beautiful communities
- All new homes to be 'zero carbon ready', with no new homes delivered under the new system needed to be retrofitted as we achieve our commitment to net zero carbon emissions by 2050.
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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/958421/Planning _for_the_Future_web_accessible_version.pdf

¹³ https://www.gov.uk/government/news/launch-of-planning-for-the-future-consultation-to-reform-the-planningsystem

¹⁴ https://commonslibrary.parliament.uk/research-briefings/cbp-8981/

The MHCLG also launched a separate consultation on changes to the current planning system¹⁵. This consultation ran from 6 August 2020 to 1 October 2020. In summary, this consultation sought views on a range of proposed changes to the current planning system including:

- Changes to the standard method for assessing local housing need
- Securing of First Homes through developer contributions
- Temporarily lifting the small sites threshold
- Extending the current Permission in Principle to major development.

D.3.2 Housing and Planning Act, 2016

The Act provides the statutory framework to build more homes that people can afford, expand home ownership, and improve housing management. The Act places a duty on local authorities to promote the development of starter homes, custom and self-build homes. The Act simplifies and speeds up the neighbourhood planning process to support communities that seek to meet local housing and other development needs through neighbourhood planning. In addition, the Act seeks to ensure that every area has a Local Plan and gives the Secretary of State further powers to intervene if Local Plans are not effectively delivered.

The Secretary of State must also carry out a review of planning legislation, government planning policy and local planning policies, concerning sustainable drainage in relation to the development of land in England.

D.3.3 Localism Act, 2011

The Localism Act was given Royal Assent in November 2011 with the purpose of shifting power from Central Government back to local councils, communities and individuals. The Government abolished Regional Spatial Strategies, providing the opportunity for councils to re-examine the local evidence base and establish their own local development requirements for employment, housing and other land uses through the plan making process.

Additionally, this act places a duty to cooperate on local authorities, including statutory bodies and other groups, in relation to the planning of sustainable development. This duty to cooperate requires local authorities to:

"...engage constructively, actively and on an ongoing basis in any process by means of which development plan documents are prepared so far as relating to a strategic matter." (Provision 110).

This act, together with the Neighbourhood Planning (General) Regulations 2012, also provides new rights to allow Parish or Town Councils to deliver additional development through neighbourhood planning (Neighbourhood Plans). This means local people can help decide where new homes and businesses should go and what they should look like. Local planning authorities can provide technical advice and support as neighbourhoods draw up their proposals. Neighbourhood Plans have a number of conditions and requirements as set out in the NPPF. Also refer to Paragraph 061-064 of the FRCC-PPG for information on neighbourhood planning and flood risk.

D.4 Planning policy

D.4.1 National Planning Policy Framework (NPPF)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/927157/200805_ Changes_to_the_current_planning_system.pdf

The National Planning Policy Framework (NPPF) was published in March 2012 and received a significant revision in July 2018. The latest update took place in July 2021. It forms the national policy framework in England and is based on core principles of sustainability. It must be taken into account in the preparation of local plans and is a material consideration in planning decisions. The NPPF is accompanied by Planning Practice Guidance (PPG) notes which are updated as the need arises.

The PPG documents will, where necessary, be updated in due course to reflect the changes in the latest version of the NPPF.

The key changes compared to the 2012 NPPF include:

- Strategic policies should now 'manage flood risk from all sources' (para 160);
- Strategic policies should also now consider the `cumulative impacts in, or affecting, local areas susceptible to flooding' (para 160), rather than just to or from individual development sites;
- Future risk from climate change. The 'sequential approach should be used in areas known to be at risk now or in the future from any form of flooding' (para 162);
- Natural Flood Management. 'Using opportunities provided by new development and improvements in green and other infrastructure to reduce the causes and impacts of flooding (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management)' (para 161c);
- SuDS. 'Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate' (Para 169) and;
- Emergency planning. Emergency plans are required as part of an FRA that includes the inclusion of safe access and egress routes (para 167e).

As explained, the FRCC-PPG sits alongside the NPPF and sets out detailed guidance on how this policy should be implemented.

D.4.2 Flood Risk and Coastal Change Planning Practice Guidance (FRCC-PPG)

At the time of writing, the current FRCC-PPG was published on 6 March 2014 and is available online via:

https://www.gov.uk/guidance/flood-risk-and-coastal-change

Following the 2018 revision and 2019 updates of the NPPF, Government will, where necessary, be updating the FRCC-PPG to reflect the changes discussed above. It is advised that any hyperlinks within the FRCC-PPG that direct users to the previous 2012 NPPF should be disregarded.

Whilst the NPPF concentrates on high level national policy, the FRCC-PPG is more detailed. The practice guidance advises on how planning can take account of the risks associated with flooding and coastal change in plan making and the development management process. This is in respect of local plans, SFRAs, the sequential and exception tests, permitted development, site-specific flood risk, Neighbourhood Planning, flood resilience and resistance techniques and the vulnerability of development to make development safe from flooding.

D.4.3 Local Plan

A Local Plan¹⁶ is a statutory document prepared in consultation with the local community. It is designed to promote and deliver sustainable development. Local Plans have to set out a clear vision, be kept up to date and to set out a framework for

¹⁶ Town and Country Planning, England. The Town and Country Planning (Local Planning) (England) Regulations 2012

future development of the local area, addressing needs and opportunities in relation to housing, the economy, community facilities and infrastructure as well as safeguarding the environment and adapting to climate change and securing good design.

Local Plans set the context for guiding decisions and development proposals and along with the NPPF, set out a strategic framework for the long-term use of land and buildings, thus providing a framework for local decision making and the reconciliation of competing development and conservation interests.

The aim of a Local Plan is to ensure that land use changes proceed coherently, efficiently, and with maximum community benefit. Local Plans should indicate clearly how local residents, landowners, and other interested parties might be affected by land use change. They are subject to regular periods of intensive public consultation, public involvement, negotiation and approval. The Local Plan should be the starting point when considering planning applications.

The NPPF requires that the evidence base for the Local Plan must clearly set out what is intended over the lifetime of the plan, where and when this will occur and how it will be delivered. The NPPF states that Local Plans should be supported by a SFRA and should take account of advice provided by the EA and other flood risk management bodies. This SFRA should be used to ensure that when allocating land or determining planning applications, development is located in areas at lowest risk of flooding. Policies to manage, mitigate and design appropriately for flood risk should be written into the Local Plan, informed by both this SFRA and the Sustainability Appraisal.

Government guidance on Local Plans can be found via:

https://www.gov.uk/guidance/local-plans--2

Lancaster Local Plan¹⁷

At the time of writing, the Lancaster Local Plan, consists of the following documents:

- Strategic Policies and Land Allocations Development Plan Document (DPD)
- Development Management DPD
- Arnside and Silverdale Area of Outstanding Natural Beauty DPD
- Morecambe Area Action Plan DPD

The SPLADPD and DMDPD were adopted in 29 July 2020. The SPLADPD directs where homes, employment land, services and future investment will go in the district over the next 15 years, and the DMDPD sets out a series of generic planning policies which will be used in determining planning applications.

The Council is currently carrying out a review of the Local Plan following a declaration of a climate change emergency in January 2019. The review aims to enhance policies to improve mitigation and adaptation measures to address climate change. The updated local plan will ensure the actions set out in the climate emergency declaration are implemented when considering future development.

D.4.4 Sustainability Appraisals

The Sustainability Appraisal (SA) is a key component of the Local Plan evidence base, ensuring that sustainability issues are addressed during the preparation of local plans. The SA is a technical document which has to meet the requirements of the Strategic Environmental Assessment Directive 2001/42/EC which assesses and reports on a plan's potential impact on the environment, economy, and society. The SA carries out an assessment of the draft policies at various stages throughout the preparation of the Local Plan, and does this by testing the potential impacts, and consideration of alternatives are tested against the plan's objectives and policies. This ensures that the

potential impacts from the plan on the aim of achieving sustainable development are considered, in terms of the impacts, and that adequate mitigation and monitoring mechanisms are implemented.

Lancaster Sustainability Appraisal

The emerging Local Plan Review will build on the adopted Local Plan Part 1 and Part 2 with a specific focus on further developing and enhancing the climate change policies within each. It is appropriate that a new Sustainability Appraisal scoping exercise was undertaken to ensure up-to-date evidence has been gathered. A Scoping Report for the Sustainability Appraisal was produced in October 2020.

D.5 Flood risk management policy

D.5.1 National and Local Flood Risk Management Strategies

As presented in Figure 4-1 in Section 4.1 of the main report, the FWMA establishes how flood risk will be managed within the framework of National Strategies for England and Local Strategies for each LLFA area.

The National Strategy for England has been developed by the EA with the support and guidance of Defra and was adopted September 2020¹⁸. The National Strategy sets out principles for how flood risk should be managed and provides strategic information about different types of flood risk and which organisations are responsible for their effective management. The FWMA requires risk management authorities (local authorities, EA, sewerage companies and highways authorities) to work together and act consistently with the National Strategy in carrying out their flood and coastal erosion risk management functions effectively, efficiently and in collaboration with communities, businesses and infrastructure operators to deliver more effective flood risk management.

The LLFA has a leadership role on local flood risk management in its area and must produce a local flood risk management strategy covering its local area. **The local strategy produced must be consistent with the National Strategy**. The local strategy should set out the framework for local flood risk management functions and activities and should raise awareness of local organisations with responsibilities for flood risk management in the area. The strategy should also facilitate partnership arrangements to ensure coordination between local organisations and an assessment of flood risk and plans and actions for managing risk, as set out under Section 9 of the FWMA.

The following link provides guidance for RMAs and local authorities on various subjects of flood risk management, including tools to support LLFAs in developing their LFRMS.

https://www.gov.uk/guidance/flood-risk-management-information-for-flood-risk-management-authorities-asset-owners-and-local-authorities

Lancashire and Blackpool Local Flood Risk Management Strategy (LFRMS)¹⁹

The Lancashire and Blackpool LFRMS was produced in October 2013 and sets out how the Council will manage flood risk, from surface water runoff, groundwater, tidal sources, main rivers and ordinary watercourses for which the Council has responsibility as LLFA, and other types of flooding where local agents can play a supporting role to lead agencies. One of the key aims of this Strategy is to improve local flood risk management in a sustainable way.

¹⁹ https://www.lancashire.gov.uk/media/900474/lancashire-and-blackpool-local-flood-risk-management-strategy-consultation-draft.pdf

¹⁸ https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-forengland--2

The LFRMS have nineteen objectives which aim to form the policy on flood risk for the LCC, these have been divided into five key themes:

- Roles and Responsibilities: who is responsible for managing different types of flooding and what are the roles of the different RMAs within Lancashire.
- Understanding Risk
- Funding
- Communication and Involvement
- Sustainable Flood Risk Management

The LFRMS is developed and maintained by Lancashire County Council. These objectives are supported by the action plan of measures and actions the County Council are pursuing in order to ensure effective flood risk management across the County. The action plan is proposed to be a living document that will be regularly amended and updated to reflect the changing nature of priorities associated with flood risk.

The local strategy should be reviewed and updated in 2020 as it must remain consistent with the national strategy which was published July 2020. This is a requirement under the FWMA 2010.

Review of the LFRMS

It is recommended that the Lancashire and Blackpool LFRMS is updated as soon as possible to take account of the:

- Updated National Flood and Coastal Erosion Risk Management Strategy²⁰, published July 2020, noting the increasing emphasis on planning for adapting to climate change that runs through the new national strategy;
- The revised government policy statement on Flood and Coastal Erosion Risk Management²¹ (July 2020);
- Revised flood risk datasets, including those collated for this SFRA that have emerged since 2014;
- Lessons learnt from severe fluvial and surface water flooding events since 2014;
- UKCP18 climate projections for both sea level rise and EA allowances for peak river flows;
- Any new or updated EA modelling within the region; and
- Revised approaches to flood risk management, partnership working and funding that have emerged since 2013.

The review should ensure:

- The views of all relevant stakeholders are taken into account;
- The flood risk evidence base is updated for all sources of flooding and presented in such a way that it can be used to prioritise actions across the County and to help justify funding for further appraisal work where this is deemed necessary;
- The objectives and actions from the previous 2013 LFRMS are reviewed against the progress that has been made in local flood risk management work in the County;

²⁰ https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-forengland--2

²¹ https://www.gov.uk/government/news/multi-billion-pound-investment-as-government-unveils-new-long-term-plan-to-tackle-flooding

- A revised action plan is specific, achievable and fundable, with measurable success factors and that this can be aligned with the wider work the County Council does i.e. in terms of managing open space, highways, etc.; and
- A Strategic Environmental Assessment and Habitats Regulations Assessment are undertaken, if these are scoped in and appropriate.

D.5.2 WATER MANAGEMENT: Consideration of Alternative Policy Approaches

As part of the Climate Change Emergency Local Plan Review, certain policies have been considered, including for the management of water across the district. Relevant to the SFRA are policies 'Development and Flood Risk' and 'Surface Water Runoff and Sustainable Drainage'.

Policy DM33: Development and Flood Risk

• Proposals will be required to minimise the risk of flooding to people and property by taking a sequential approach which directs development to the areas at the lowest risk of flooding, in accordance with the requirements of national planning policy and any other relevant guidance.

• Proposals for new development in areas at risk of flooding as defined by National Planning Policy will be required to meet a set of criteria regarding flood risk, including satisfying the requirements of the sequential and exception tests and ensuring proposals are supported by a site-specific Flood Risk Assessment.

• New development must consider the Strategic Flood Risk Assessment and any updated Environment Agency Flood Zone Maps that highlight areas at risk and vulnerable to flooding.

• Natural flood risk management techniques are encouraged as part of the green and blue infrastructure in new development. These techniques can help reduce runoff, aid biodiversity and the overall design and place making of a site.

Policy DM34: Surface Water and Sustainable Drainage

• Surface water should be managed sustainably within new development, using Sustainable Drainage Systems (SuDS), giving priority to naturalistic solutions incorporated into the soft landscaping of the development.

• Surface water should be managed through the provision of above ground sustainable drainage features with multi-functional benefits as part of an integrated high-quality green and blue environment.

• Proposals will be expected to demonstrate that development reduces and manages flood risk by reducing the amount of run-off and discharge from the site using appropriate water reuse and sustainable drainage systems techniques.

• Proposals must demonstrate that surface water from new development accords with the Sustainable Drainage Hierarchy, which details the preferable method of managing surface water run-off across the development site.

D.5.3 Surface Water Management Plans (SWMP)

In June 2007, widespread flooding was experienced in the UK. The Government review of the 2007 flooding, chaired by Sir Michael Pitt recommended that...

"...Local Surface Water Management Plans (SWMPs) ...coordinated by local authorities, should provide the basis for managing all local flood risk."

The Government's SWMP Technical Guidance document²², 2011, defines a SWMP as:

- A framework through which key local partners with responsibility for surface water and drainage in their area, work together to understand the causes of surface water flooding and agree the most cost-effective way of managing surface water flood risk.
- A tool to facilitate sustainable surface water management decisions that are evidence based, risk based, future proofed and inclusive of stakeholder views and preferences.
- A plan for the management of urban water quality through the removal of surface water from combined systems and the promotion of SuDS.

As a demonstration of its commitment to SWMPs as a structured way forward in managing local flood risk, Defra announced an initiative to provide funding for the highest flood risk authorities to produce SWMPs.

Defra's framework for carrying out a SWMP is illustrated by the SWMP wheel diagram, as shown in Figure 5. The first three phases involve undertaking the SWMP study, whilst the fourth phase involves producing and implementing an action plan which is devised based on the evidence gained from the first three phases.

²² Surface Water Management Plan Technical Guidance - https://www.gov.uk/government/publications/surfacewater-management-plan-technical-guidance



Figure 5: Defra wheel (taken from SWMP Technical Guidance)

Lancaster City Council SWMP (2021)

The Lancaster City Council SWMP outlines the predicted risk and preferred surface water management strategy for the district. In this context, surface water flooding describes flooding from sewers, drains, groundwater, and runoff from land, small watercourses and ditches that occurs as a result of heavy rainfall.

The detailed risk assessment consists of a desktop investigation of available data and direct rainfall modelling of the study area, split into six sub-catchments (see Figure 6), for seven rainfall event return periods. The results of this modelling have been used to identify areas where surface water flooding affects both residential and non-residential properties. The number of properties at risk and associated economic flood damages occurring during modelled return periods have been calculated. Following this, four sub-catchments within the district with the greatest risk of surface water flooding have been identified, and flood risk management options have been provided. The four catchments with the highest flood risk are Upper Caton Road, Lower Caton Road, City Centre and Upland.



Figure 6: surface water sub-catchments

Hornby, Lancaster SWMP (2016)

A Level 2 SWMP was undertaken for the area of Hornby within Lancaster to provide the evidence base required to support the delivery of local flood management action by Lancashire City Council. In order to assess the probability and consequences of surface water flooding in Hornby, a hydraulic model was developed. The model was simulated for six design events. Hydraulic modelling indicated areas at high risk of flooding due to surface water, ponding above 250mm. The areas are:

- Hornby High School
- Residential properties south of Monteagle Drive
- Main Street near Fire Station and Royal Oak Pub
- Open land east of Monteagle Drive
- Main Street near Post Horse Lane.

The number of properties at risk of surface water flooding and the associated economic damages at these sites during each design event were calculated. Flood risk management options have been considered, which includes the implementation of bunds and raised kerbs in areas of high risk.

D.5.4 Green Infrastructure assessments

Open space, or Green Infrastructure (GI), should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities and should be provided as an integral part of all new development, alongside other infrastructure such as utilities and transport networks.

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Open space can provide many social, economic and environmental benefits close to where people live and work including:

- Places for outdoor relaxation and play;
- Space and habitat for wildlife with access to nature for people;
- Environmental education;
- Local food production in allotments, gardens and through agriculture;
- Improved health and well-being lowering stress levels and providing opportunities for exercise;
- Climate change adaptation for example flood alleviation and cooling urban heat islands.

Paragraph 118b of the NPPF (2019) explains that open space can perform many functions, including flood risk mitigation, and that Local Plans should account for increased flood risk, resulting from climate change, through the planning of Green Infrastructure. GI can have an important role to play in reducing the likelihood of flooding by providing space for flood storage, reducing runoff and increasing infiltration, whilst also providing other benefits as stated above.

Alongside GI should be the implementation of SuDS, specifically within potential development sites, where possible. The suitability of GI and SuDS can be informed by this SFRA through utilisation of open space for water in the areas of greatest flood risk, which would be key to helping deliver sustainable development. Examples include:

- Restoration of natural character of floodplains;
- Reduction of downstream flood risk;
- Preserving of areas of existing natural floodplain; and
- Introduction of new areas and enhancing existing areas of greenspace whilst incorporating sustainable drainage within new development.

The Town and Country Planning Association together with the Wildlife Trusts produced a guidance document for Green Infrastructure²³. The guidance states that local plans should identify funding sources for GI and provision should be made for GI to be adequately funded as part of a development's core infrastructure. For new developments, GI assets can be secured from a landowner's 'land value uplift' and as part of development agreements. LPAs may include capital for the purchase, design, planning and maintenance of GI within the Community Infrastructure Levy (CIL) programme.

Lancaster GBI strategy

A Green and Blue Infrastructure Strategy was produced in July 2021 to cover the Lancaster District from 2020 to 2031 to form part of the evidence base for the Local Plan review. The strategy identifies six key themes/uses of green and blue infrastructure, which are recognized to be cross-cutting, reflecting the multifunctionality and connectivity of these spaces, corridors and chains. These are:

²³ Planning for a Healthy Environment - Good Practice Guidance for Green Infrastructure and Biodiversity, Published by the Town and Country Planning Association and The Wildlife Trusts, July 2012

- Recreation/Accessible Greenspace
- Ecology/Biodiversity
- Water Management
- Active Travel
- Landscape
- Historic Environment

The strategy states that development proposals should begin with a 'GBI first' approach, exploring the role, function and value of green and blue spaces within new developments from the start, to contribute towards the mitigation and/or adaptation of climate change. For example, above grounds SuDS schemes not only help to manage water and reduce flood risk in response to increased rainfall, but they can also provide an aesthetic landscape feature within a development and also net gains in biodiversity.

JBA

LCiC have developed a GBI toolkit as part of the Green and Blue Infrastructure Strategy so that the climate change mitigation/adaptation value of green and blue infrastructure can be assessed, and to provide a tool which can be used to inform the design of green and blue infrastructure to help deliver multifunctional spaces.

It is important to ensure that green and blue infrastructure assets are managed and maintained so that they continue to effectively deliver the long-term uses and benefits that they were designed to provide.

D.5.5 Local Flood Studies

Lancashire County Council, as a Lead Local Flood Authority (LLFA), has a duty to investigate flooding in accordance with Section 19 of the Flood and Water Management Act 2010. Flood Investigation Reports are publicly available for the Summer 2012 floods and the December 2015 floods.

Flood Investigation Report Lancashire Summer 2012

The period between June and September 2012 was one of the wettest on record, with principal flood events occurring on 22/23 June and 24 September. During the events, the Councils, EA, UU and the Emergency Services worked collaboratively the help prevent and alleviate flooding. The most severe flooding in the June event occurred in East Lancashire, at Croston, Whalley, Leyland, Rossendale and Darwen. In the September event, the most severe flooding occurred in West Lancashire, Croston and parts of Wyre. No properties were reported as flooded in Lancaster District during either event.

The 2012 floods were the first widespread test of flood response and risk management in Lancashire since the introduction of the Flood and Water Management Act 2010. The report concluded that all Lancashire's RMAs exercised their flood risk management functions effectively and proactively in the vast majority of recorded flood incidents. It was noted that in particular the Making Space for Water meetings in each district provided an effective method for RMAs to discuss issues prior to the flood incidents. The report highlights key objectives to be pursued by RMAs, including providing simpler and more accessible public information on flood risk and the roles of RMAs, empowering communities to be more flood risk aware and finding ways for agencies to work effectively across boundaries (organisational, geographic, political, catchment etc.).

Flood Investigation Report Lancashire December 2015

The Flood Investigation Report for the December 2015 flooding was delivered in two parts; a county level report on the causes, response and impacts of the incident, and a district level report which provides affected communities with information on what is being done by RMAs to help manage flood risk at specific locations.

The extreme and unprecedented storms and rainfall experienced in November and December 2015 lead to extensive flooding across not only Lancashire, but many other regions in the North West. 229 communities in Lancashire were affected, with approximately 2500 homes flooded, as well as other private property, items of critical public infrastructure and essential community buildings. It was concluded that following the flood events, improvements were required to the way in which flood investigations and risk management were communicated to affected communities, which prompted the development of the district level reports.

The Lancaster District Flood Report, published in November 2016 by the County Council, identifies opportunities for further investigation and investment in flood risk management. It sets out the responsibilities and functions of each RMA, and provides a series of recommended actions, at a city, district and community level. District-wide actions include reviewing the Lancaster Level 2 SWMP and reviewing the Ordinary Watercourse Study for Lancaster District. For the forty locations in Lancaster District where internal property flooding was reported, the required actions from RMAs are set out, along with a status of completion. The report will be updated on a quarterly basis to allow affected communities to see progress and resolution of as many issues as possible, as quickly as possible.

Flood Investigation Report Lancashire November 2017

On the night of 22/23 November 2017, an intense rain storm was recorded travelling from the Irish Sea coast at Blackpool to the north-easterly extent of Lancaster District. Communities lying under the path of this storm experienced extreme downpours that exceeded the intensities experienced during Storm Desmond 2015. This rainfall event was highly damaging. It overwhelmed natural and constructed drainage networks in its path, causing extensive surface water and river flooding. It dislodged soil/silt and vegetation which blocked drainage networks that might otherwise have coped with the surface water.

Over 900 homes and other premises in Lancashire were flooded that night, either within the property boundaries or inside habitable rooms. The Environment Agency evacuated 70 households from their homes in Galgate overnight, and United Utilities staff worked through the night to gain control over sewer flooding across the Blackpool and Thornton-Cleveleys areas of the Fylde. Many roads including those used for critical emergency access (including the M6 motorway and the A6) were obstructed by flood water, and bow-waves from passing traffic caused standing water to enter houses and other property close to the roads.

Flood Investigation Report Lancashire June 2018

The evening of Friday 1 June 2018 brought a series of very localised, high intensity downpours to parts of Lancashire. Emergency responder records indicate that there were flooding incidents in various locations including Leyland, Lea (Preston), Pilling (Wyre), Bacup, Accrington, Barnoldswick, Earby and Longridge, which were reported to the county council from 7pm onwards. 60 homes flooded at some that evening, of which 19 flooded internally to at least one habitable room.

On the night of the flooding, responses were made on the ground to reports of flooding of public highways and private property by the Police, Lancashire Fire and Rescue Service, LCC Highways, United Utilities plc and Yorkshire Water plc. There was no direct emergency response from the Environment Agency, as no river or coastal flooding occurred. There was also no emergency response from District and City Councils, as the scale and extent of the incidents were managed within the resources available to first responders and did not trigger any major incident procedures.

D.5.6 Flood risk partnerships and partnership plans

LCiC has been involved in the development of several partnerships designed to provide collaboration between public agencies, businesses and the community. Partnerships and plans that affect the borough include:

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- Lancashire Resilience Forum (LRF) see Section 7.1.1 of the main report,
- Strategic Flood Risk Management Group,
- Lancashire Flood Risk Management Group,
- Lancashire County Council Community Risk Register see Section 7.1.2 of the main report,
- North West Regional Flood and Coastal Committee (NRFCC),
- Lancashire Strategic Partnership Group,
- Flood warning and awareness in partnership with the EA,
- Local flood plans see Section 7.1.4 of the main report,
- Lancashire Evacuation Plan²⁴,
- Key businesses and organisations CLA have ongoing relations with major landowners, employers and organisations such as the Canal and Rivers Trust, National Trust, Natural England, Highways England, Network Rail, and English Heritage.

See Section 7 of the main report on Emergency Planning for more information.

D.6 Roles and responsibilities

The responsibilities for the RMAs under the FWMA and FRR, as summarised by Government²⁵, are summarised below.

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D.6.1 EA as a RMA

- Has a strategic overview role for all forms of flooding;
- Provides and operates flood warning systems;
- Carries out work to manage flood risk from the sea and main rivers;
- Carries out works in estuaries to secure adequate outfalls for main rivers;
- Carries out surveys to inform FCERM works and has the right to enter private land to carry out such works;
- Issues permits and byelaws with the Environmental Permitting (England and Wales) Regulations 2016 and remaining Environment Agency North West Region byelaw prohibitions for works on or near main rivers, and works affecting watercourses, flood and sea defences and other structures protected by its byelaws;
- Designates structures and features of the environment that affect flood or coastal erosion risk;
- Has the power to request information from any partner in connection with its risk management functions;
- Must exercise its flood or coastal erosion risk management functions in a manner consistent with the National Strategy and Local Strategies;
- Must be consulted on Local Strategies, if affected by the strategy, by the LLFA;
- Must help advise on sustainable development.

D.6.2 LPA as a RMA

- Strategic leadership duties;
- Has a duty to act in a manner that is consistent with the National Strategy and have regard to Local Strategies;
- Must contribute to sustainable development;
- Must be consulted on Local Strategies, if affected by the strategy, by the LLFA;
- Has a duty to be subject to scrutiny from the LLFA;
- Has a duty to cooperate and share information with other RMAs.

D.6.3 LLFA as a RMA

- Must develop, maintain, apply and monitor a strategy for local flood risk management. This must be consulted on with all RMAs, the public and all other partners with an interest in local flood risk, and must comply with the National Strategy;
- Should prepare and maintain a preliminary flood risk assessment, flood hazard maps, flood risk maps and flood risk management plans;
- Is required to coordinate and share information on local flood risk management between relevant authorities and partners;

²⁵ https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities

- Is empowered to request information from others when it is needed in relation to its flood risk management functions;
- Must investigate significant flooding incidents in its area where it considers it necessary or appropriate;
- Has a duty to establish and maintain a record of structures within its area that it considers having a significant impact on local flood risk;
- Is empowered to designate structures and features that affect flooding;
- Has powers to undertake works to manage flood risk from surface runoff, groundwater and ordinary watercourses;
- Must exercise its flood and coastal erosion risk management functions in a manner consistent with the National Strategy and the Local Strategy;
- Can carry out work that may cause flooding or coastal erosion in the interests of nature conservation, preservation of cultural heritage or people's enjoyment of the environment or cultural heritage;
- Can acquire land in or outside of their district for use in flood risk management if necessary;
- Is permitted to agree the transfer of responsibilities for risk management functions (except the production of a local strategy) to other RMAs;
- Can take the lead on preparing SWMPs;
- Must aim to contribute to sustainable development;
- Should consider flooding issues that require collaboration with neighbouring LLFAs and other RMAs.

D.6.4 UU as a RMA

- Has a duty to act in a manner that is consistent with the National Strategy and have regard to Local Strategies;
- Must be consulted on Local Strategies, if affected by the strategy, by the relevant LLFA;
- Has a duty to be subject to scrutiny from LLFAs;
- Has a duty to cooperate and share information with other RMAs;
- Is responsible for managing the risks of flooding from water and foul or combined sewer systems providing drainage from buildings and yards.

D.6.5 Highways Authority (LCC) and Highways England as RMAs

- Have a duty to act in a manner that is consistent with the National Strategy and have regard to local strategies when:
 - Carrying out highway drainage works,
 - Filling in roadside ditches,
 - Diverting or carrying out works on part of a watercourse;
- Have responsibility for ensuring effective drainage of local roads in so far as ensuring drains and gullies are maintained;
- Must be consulted on Local Strategies, if affected by the Strategy, by the LLFA;
- Have a duty to be subject to scrutiny from LLFAs.



D.6.6 The local community

- Responsibility for protecting their property from flooding,
- Must be consulted on Local Strategies by the LLFA;
- Has a key role in ensuring local strategies are capable of being successfully delivered within the community. They should actively participate in this process and be engaged by the LLFA.

D.6.7 Riparian owners

A riparian owner is someone who owns land or property alongside a river or other watercourses. A watercourse is any natural or artificial channel through which water flows including through a culvert, ditch, cut, dyke, sluice or private sewer.

Riparian owners have statutory responsibilities, including:

- Maintaining watercourses;
- Allowing the flow of water to pass without obstruction;
- Controlling invasive alien species

Further guidance for riverside property owners can be found via:

https://www.gov.uk/guidance/owning-a-watercourse

D.6.8 Developers

Have a vital role in ensuring effective local flood risk management by avoiding development in areas at risk of flooding. Local Strategies should form a key element of local planning guidance for developers, along with consultation of this SFRA.