






<p>Cumbria flood action plan</p> <p>Carlisle community action table</p> <p>The purpose of this action table is to highlight the flood management that is currently in place and the specific actions that are happening or proposed within Cumbria flood action plan for this community.</p> <p>Please read this table in conjunction with the full Cumbria flood action plan and summary document, which can be found online by visiting www.gov.uk and searching Cumbria flood action plan.</p>	<p>Carlisle better protected</p> <p>1) Do now (within next 12 months):</p> <ul style="list-style-type: none"> • Complete repair and recovery work • Set up temporary defences and pump deployment plan before winter 2016 • Complete emergency plans • Register properties on Floodline Warnings Direct • Publish and review flood investigation report • Initiate development of flood risk management improvement works <p>2) Develop (2-5 years):</p> <ul style="list-style-type: none"> • Improvements to flood risk management assets and watercourses in response to the flood investigation report. • Continue to support sharing knowledge and best practice through the network for Community Action Groups <p>3) Explore (5+ years):</p> <ul style="list-style-type: none"> • Implement opportunities for natural flood risk management and engineered storage upstream of Carlisle.
<p>Catchment: Eden</p> <p>Impact of December 2015 flood: Approximately 1,900 homes and businesses were flooded</p> <p>Description: The three large rivers in Carlisle are the Eden, Caldew and Petteril. Key infrastructure includes the sewage works and electricity substation which were affected by flooding and are located on Willow Holme Industrial Estate. The main west coast railway line and Cumbria's principal hospital both located nearby were also affected during Storm Desmond.</p>	

	What's already in place	What we're going to do and what this will achieve	When this work will take place	Who's responsible for this work	How much will it cost/ Sources of funding
<p>Strengthening flood defences</p> 	<p>Flooding in Carlisle is reduced by over 6.3km of raised embankment and 5km of flood wall. These defences work together to manage river flows through the town. There are 2 flood storage basins, two pumping stations to manage flows, 32 floodgates, 3km of culvert and numerous flap valves on drainage outfalls.</p>	<p>Improved defences</p> <p>£26.2million of capital funding has been allocated from within the Flood and Coastal Erosion Risk Management Investment Programme. This funding will be used to promote the options for managing flood risk which may include strengthening defences, improving the capacity of watercourses and surface water drains and upstream storage and 'slow the flow' interventions.</p> <p>Provide access to additional national mobile defences</p> <p>Review the recommendations from the Section 19 Flood Investigation Report and National Resilience Review to develop integrated flood risk management solutions and review maintenance practices.</p>	<p>Medium term (5 years)</p> <p>Available before winter 2016</p> <p>Flood Investigation Report due summer 2016</p>	<p>Environment Agency</p>	<p>£26.2m from central government</p>

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		<p>Repairing damages from Storm Desmond</p> <p>Work completed; Repairs to the storage basin at Durranhill and the pumping stations on the Little Caldew and Durranhill.</p> <p>Work ongoing and planned; In June and July projects will start to remove gravel from the river Caldew at Holme Head, repair walls at Botcherby Bridge and remove gravel and a significant number of fallen trees in the channel of the river Petteril between London Road and Melbourne Park.</p>	<p>Complete</p> <p>Short term (within 12 months)</p>		<p>£1.4m from central government</p>
		<p>Modelling and forecasting post-event model re-runs</p> <p>Update the river level model with the most recent flow data available from Storm Desmond to develop and support any future schemes.</p> <p>Hold a flood risk management and modelling competition on the Eden catchment.</p>	<p>Short term (within next 12 months)</p> <p>Short term (within next 12 months)</p>	<p>Environment Agency</p> <p>Defra</p>	<p>£70,000 (Cumbria wide spend)</p>
		<p>Understanding Bridges</p> <p>Review the role that bridges play in flood risk and their vulnerability during a flood</p>	<p>Short term – strategic review within the next 12 months</p>	<p>Cumbria County Council Environment Agency</p>	
		<p>Understanding railway structures</p> <p>Assess the vulnerability of the West Coast Main Line Railway particularly at bridge crossings, and take action where appropriate.</p>	<p>Short Term – May 2017</p>	<p>Network Rail Environment Agency and Cumbria County Council as lead local flood authority</p>	
<p>Upstream management</p> 	<p>Currently there is limited use of Upstream Management in the sub-catchments upstream of Carlisle.</p> <p>Projects are underway in the Eden valley to install natural flood management features and practices such as woodland planting, managing soil to improve infiltration, leaky dams and peatland restoration.</p>	<p>Explore opportunities for engineered and natural flood management solutions to be used upstream of Carlisle in order to 'slow the flow' and manage peak river levels</p> <p>By January 2017 it will be easier for farmers and landowners to get natural flood management advice and adopt natural flood management practices through the countryside stewardship scheme.</p>	<p>Medium term (5 years) or long term (over 5 years)</p> <p>Short term January 2017</p>	<p>Farmers Landowners Community Groups Trusts</p> <p>Natural England</p>	

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		<p>The Cumbrian River Restoration Strategy aims to protect Cumbria's special areas and create better places for local communities, with reducing flood risk and adaptation to climate change being key considerations. This is achieved through projects such as weir removal, re-meandering channels and re-connecting rivers to the natural flood plain.</p> <p>On the River Caldew there are projects planned to work with landowners to look at gravel management, possible weir removal and re-connect parts of the river to the flood plain.</p>	Medium term (5 years)	Eden Rivers Trust Environment Agency Cumbria County Council Carlisle City Council Land owners Natural England	
		Scope an investigation into using Haweswater and Wet Sleddale reservoirs to reduce flooding downstream.	Medium term (5 years)	United Utilities	
		Natural flood management approaches will be trialled and developed in the future across the Eden catchment for affected areas, for example at Stockdalewath, Patterdale and Gamblesby. This will be part of a co-ordinated approach to develop natural flood risk management across the catchment. The longer term aim is to see how this could be scaled up for the benefit of Carlisle.	Medium term (5 years)	Farmers Landowners Community Groups Trusts	
<p>Maintenance</p> 	<p>Flooding in Carlisle is reduced by over 6.3km of raised embankment and 5km of flood wall. These defences work together to manage river flows through the town. There are 2 flood storage basins, two pumping stations to manage flows, 32 floodgates, 3km of culvert and numerous flap valves on drainage outfalls.</p> <p>These assets and the river channel are maintained by the Environment Agency on an ongoing basis. This includes managing vegetation and removing gravel. The flood wall, embankment and other structures are also inspected and any necessary works carried out.</p> <p>The planned maintenance programme is available at: https://www.gov.uk/government/publications/river-and-coastal-maintenance-programme</p> <p>Cumbria County Council maintains the ordinary watercourses, surface water drainage and highway drainage.</p>	<p>New Environment Agency system will make it easier for communities to understand maintenance in their area. Improvements will show exactly when, where and what maintenance is being planned each year.</p> <p>Make sure that communities understand how they can access information on planned maintenance at: https://www.gov.uk/government/publications/river-and-coastal-maintenance-programme</p>	Short (within next 12 months)	Communities Environment Agency Parish and district Councils	

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Resilience 	<p>There are 2 active Flood Action Groups (FLAG) in Carlisle. An Emergency Plan has been completed for the Carlisle FLAG and another is currently being developed through the Willow Holme FLAG with support from the Environment Agency.</p>	<p>Work with the FLAG's and community groups to ensure that they are able to continue into the future.</p> <p>Continue to work with communities to establish a network of Emergency Groups to share learning and best practice.</p> <p>Carlisle City Council are producing a strategic flood risk assessment for the development area of Carlisle South.</p>	<p>Emergency Plan to be in place before winter 2016.</p> <p>Short term –Early 2017</p>	<p>Environment Agency (Flood Warning & Community Resilience) Communities Parish & District Councils Local Government</p>	<p>Local Levy, central government Flood Defence Grant in Aid</p>
		<p>Identify and make up a 'core' team of Carlisle City Council staff to respond in the event of flooding.</p> <p>Ensure available sandbags are targeted to specific areas where their use may be most effective and Carlisle City Council to agree with community groups the deployment arrangements.</p> <p>Carlisle City Council to continue work on developing the Carlisle Business Continuity Plan.</p>		<p>Carlisle City Council</p> <p>Carlisle City Council</p> <p>Carlisle City Council</p>	
		<p>Carlisle currently receive Flood Warnings with an uptake of 79% of at risk properties registered to the service</p>	<p>Work with the Emergency Group to increase uptake of residents registered to the flood warning service</p>	<p>Before winter 2016 / complete</p>	
		<p>Named Carlisle City Council officer will be appointed to receive the Environment Agency/Met Office flood warnings.</p> <p>Carlisle City Council to develop engagement plan that will support the dissemination and gathering of information during an event. A clean-up plan is also to be developed/activated.</p>		<p>Carlisle City Council</p>	
	<p>Carlisle City Council is administering flood recovery and resilience grants</p>	<p>Provide additional support to DCLG and Local Authorities to improve the uptake of the £5,000 Government resilience grants to help people better protect their homes. Applications can be made up until December 2016. A further £2,000 top up grant can also be applied for from the Cumbria Flood Recovery Fund.</p>	<p>Closing date for Grant applications – end of December 2016</p>	<p>Resilience grants of £5k per property</p>	
		<p>Carry out further investigations with respect to the feasibility of local temporary defences and pumping, with the aim of having plans prepared for Winter 2016. With the outcome to increase resilience in communities where either there are no formal defences in place or where additional contingency is required.</p>	<p>Before winter 2016</p>	<p>Environment Agency</p>	

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Water Level Management Boards 	There are no Water Level Management Boards in this area				

June 2016 LIT 10479