

Flood Risk
Management
Strategy 2022
Annex D
Action Plan

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Table D.1. Flood risk management actions covering the whole of Cumbria

A list of actions/measures that will be led by the Local Lead Flood Authority to meet the requirements of the Act and this LFRMS and have countywide implications, or do not have specific local effects.

No	Action (measure)	Local Strategy Objective (Policy)	Driver	Responsible Body	Time frame for delivery	Previous Quarter Q3 21/22	Quarter Q4 21/22
1	Establish register of structures & features	P2	FWMA 2010	LLFA	2022	Green	Green
2	Establish LLFA as a Statutory Consultee for drainage within the planning process	P3	FWMA 2010	DEFRA, LLFA	2022	Green	Green
3	Produce SuDS guidance	P3	Local Strategy	LLFA	2022	Green	Green
4	Local Flood Risk Management Strategy	P1,P2	FWMA 2010	LLFA	2022	Green	Green
5	Power to request information	P2	Local Strategy	LLFA, EA	On-going	Green	Green
6	Flood investigations	P2	FWMA 2010	LLFA	On-going	Green	Green
7	Consenting works on ordinary watercourses	P3	FWMA 2010	LLFA	On-going	Green	Green
8	Scrutiny arrangements (internal & external)	P2	FWMA 2010	LLFA	On-going	Green	Green
9	SWMP development	P1,P2	Local Strategy	LLFA	2022	Green	Green
10	Develop an integrated asset management strategy	P1, P2,	Local Strategy	LLFA	2022	Green	Green
11	Establish register of sites suitable for habitat restoration	P1	Local Strategy	LLFA	On-going	Green	Green

Key: BBC - Barrow Borough Council CBC - Copeland Borough Council CSR2 - Comprehensive Spending Review 2021-2027 CSR3 - Comprehensive Spending Review 2027-2033 Defra - Department for Environmental Food & Rural Affairs
 EA - Environment Agency EDC - Eden District Council ERT - Eden Rivers Trust FWMA - Flood & Water Management Act 2010 GiA - Department for Environmental Food & Rural Affairs Grant in Aid funding HA - Highways Authority
 LFRMS - Local Flood Risk Management Strategy LLFA - Lead Local Flood Authority LVT - Lune Valley Trust MSWG - Making Space for Water Group NE - Natural England NFM - Natural Flood Management NH - National Highways
 NW - Network Rail PLP - Property Level Protection PVA - Potential Vulnerable Area RMA - Risk Management Authority SuDs - Sustainable urban Drainage Systems SWMP - Surface Water Management Plan UU - United Utilities
 WCRT - West Cumbria Rivers Trust YDNP - Yorkshire Dales National Park

Table D.2. MSfWG Actions

Each of the six district areas within Cumbria has a Making Space for Water Group (MSfWG). The purpose of the group is to work together in order to provide accurate assessments of the risk, nature and scale of local flooding. The group identify solutions to reduce the risk of flooding from local sources and mitigate the effects of flooding.

No	Action (measure)	Local Strategy Objective (Policy)	Driver	Responsible Body	Time frame for delivery	Previous Quarter Q3 21/22	Quarter Q4 21/22
1	Raise awareness of flood risk and local flooding issues for the public and how they can reduce the risks	P1, P2, P5	Local Strategy	LLFA, EA	On-going	Green	Green
2	Contributions to register of structures & features	P2	Local Strategy	LLFA	On-going	Green	Green
3	Coordinated flood risk planning and delivery	P1	Local Strategy	LLFA	On-going	Green	Green
4	Flood investigations	P2	FWMA 2010	LLFA	On-going	Green	Green
5	Improve community resilience through awareness of flood risk.	P1, P2, P4 & P5	Local Strategy	LLFA, EA	On-going	Green	Green
6	Define scope of Flood Risk Management functions; see Section 5.4.2.2, Objective 2, Communication	All	Local Strategy	LLFA	2022	Green	Green

MSFWG investigation priority

A priority has been devised for dealing with Hotspots: -

● **High**

- Internal flooding of five or more properties during a single event or internal flooding of one or more properties that has been experienced on more than one occasion in a 10 year period or there is a risk to life as a result of flooding.
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● **Medium**

- All other internal flooding that does not meet the criteria above.
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● **Low**

- External flooding (including gardens, driveways and detached garages/sheds).
-

Table D.3. Flood ‘Hotspots’ and priorities by area as at March 2022

West

	Allerdale		Copeland	
High	14		High	20
Medium	12		Medium	21
Low	125		Low	55
Total	151		Total	96

East

	Carlisle		Eden	
High	7		High	18
Medium	21		Medium	58
Low	48		Low	13
Total	76		Total	89

South

	South Lakeland		Barrow	
High	31		High	2
Medium	121		Medium	6
Low	35		Low	4
Total	187		Total	12

Table D.4. Actions/measures that will be undertaken by the LLFA to reduce flood risk locally

The actions below have been taken from the Surface Water Management Plan - Action Plan.

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR104 - Carlisle Centre	NY401563	Widespread flooding from the Rivers Eden, Petteril, and Caldew, plus flooding from other watercourses, surface water and drainage systems during Storm Desmond in December 2015 affecting 2,100 properties. Initially surface water and overwhelmed drainage systems affected a number of areas prior to defences being overtopped due to extreme nature of rainfall event. Further investigation is needed to understand how surface water can be better managed and how it is influenced by watercourses in the city.	Initial Assessment Study was completed in 2017. EA flood defence improvements.	LLFA, UU, EA, Carlisle City	tbc	All

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR131 - Brunton Crescent	NY414558	Widespread flooding from the Rivers Eden, Petteril, and Caldew, plus flooding from other watercourses, surface water and drainage systems during Storm Desmond in December 2015 affecting 2,100 properties. Initially surface water and overwhelmed drainage systems affected a number of areas prior to defences being overtopped due to extreme nature of rainfall event. Further investigation is needed to understand how surface water can be better managed and how it is influenced by watercourses in the city.	Initial Assessment Study was completed in 2017. EA flood defence improvements.	LLFA, UU, EA, Carlisle City	tbc	All
	AoR105 - Ivory Close	NY382556	Parham Beck which flows to the north is shallow in nature and prone to exceeding its banks. Flooding was noted upstream on Green Lane and within Heysham Park but no flooding at Ivory Close is noted in the last 5 years.	Scheme is to begin imminently to provide overflow route and improve outflow from Green Lane into Parham Beck. The Environment Agency are looking to de-silt a section of Parham Beck 22/23.	EA	2022/23	P1, P2, P4, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR124 - Green Lane	NY372558	Green Lane was flooded in 2019 due to siltation of the culverted ordinary watercourse at the frontage of the dwellings. Cleaned in September 2019 and issues noted at the outfall into Parham Beck.	Scheme is to begin imminently to provide overflow route and improve outflow from Green Lane into Parham Beck. The Environment Agency are looking to de-silt a section of Parham Beck 22/23.	EA	2022/23	P1, P2, P4, P5
Carlisle (PVA11)	AoR106 - Dalton Avenue	NY382552	There is flooding issues to the carriageway of Dalton Avenue and in 2 properties rear gardens. Likely cause is surface water runoff from completed residential development to the rear which is at a higher level. Discharge through fences to the rear of the gardens.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR107 - Stanhope Road	NY391554	The area frequently floods as a result of main river which runs alongside Stanhope Road and Dalston Road junction. The highway flooding is recorded but a recent development behind the ALDI store on Dalston Road has rectified issues associated with the main river caused the flooding.	Inclusion of this as part of EA Caldew scheme. A study will be required for the drainage infrastructure in the area and resultant works will be required to be undertaken. Watching brief.	EA	2202-25	P1, P2, P4, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR108 - Dunmail Drive	NY387549	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR109 - Skiddaw Road	NY389551	Surface water flood risk associated with sewer network.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR125 - Chesterholm	NY369554	Flooding of the Yewdale Playing Fields noted due to surface water runoff.	Carlisle City Council installed new filter drains in September 2021. Watching brief.	Carlisle City Council, LLFA	Ongoing	P2, P5
	AoR126 - Queensway	NY375547	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR127 - Newtown Road	NZ281450	Surface water flood risk associated with sewer network.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR110 - Durdar Road	NY404513	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR116 - Vallum Close	NY405572	Flooding noted at this location in the past for 3 dwellings. Overland flow is the primary cause of the flooding.	Placeholder for a future project.	LLFA	tbc	P1, P2, P4, P5
	AoR118 - Oaklands Drive	NY408530	Extensive flooding to 5 properties at this location due to a blocked culvert and overland flows. Flooding close to Durdar Road at Hammonds Pond due to issues with the watercourse outfall into Wire Mire Beck from the Ridings Story Homes estate.	Initial Assessment Study was completed in 2018. Story Homes delivered a flood alleviation project in 2019 / 2020 to divert the culvert and prevent overland flows. Watching brief.	LLFA	Ongoing	P2, P5
	AoR120 - Steele's Bank, Wetheral	NY464542	The overall cause of flooding is most likely a result of localised heavy rainfall and under capacity of the public sewer system along with excessive surface water runoff.	Initial Assessment Study was completed in 2013. UU working on a solution but currently not economically viable. Highways have done work on the combined sewers. Has now lessened the risk of flooding.	UU, LLFA	tbc	P1, P2, P4, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR128 - Currock	NY402554	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR129 - Mayfield Avenue	NY419543	Flooding of two rear gardens resulting from overland flows from Inglewood Junior School. Failure of an existing SuDS scheme is the likely cause due to a lack of maintenance.	CCC have undertaken drainage investigations work within the school grounds to better understand the cause.	LLFA	tbc	All
	AoR130 - Haig Road	NY419537	Flooding noted at Welsh Road / Hayton Road. Primary cause is all surface water drains into the combined sewer which is designed to a 1 in 30 year capacity. Ground water is also an issue at this location.	Further worked to be done by UU on the combined sewer. PLP suggested for residential properties (Riverside Homes).	UU, Riverside Homes	tbc	P1, P2, P4, P5
	AoR134 - Kingstown Road	NY394596	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR135 - Mount Pleasant Road	NY404538	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR136 - Wigton Road	NY378544	Issues with properties on the Eastern side of Wigton Road which back onto Castlerigg Drive. Combined sewer is taking roof water which it is not designed to accommodate.	Potential scheme as part of CSR2 to Sustainable Urban Drainage. UU are undertaking extensive CCTV surveys to understand the number of cross connections in this location.	UU	2022-25	All
Carlisle (PVA11)	AoR137 - Westrigg Road	NY381542	Historic overland flows from Isabel Field to the north. SuDS scheme installed but had a further issue in 2019.	SuDS constructed completed. Watching brief.	LLFA	Ongoing	P2, P5
	AoR111 - Longholme Road	NY424538	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR123 - Silverdale Road	NY427545	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR117 - Viaduct Estate Road	NY396559	Known flooding from main river potential from railway track and exceedance. Link to Caldew EA works.	Initial Assessment Study was completed in 2013. Debris in the flap valve has been cleared by the Environment Agency (EA). This report recommends that the asset owner carries out routine inspections to ensure that the flap valve remains free from debris. Watching brief.	EA, LLFA	Ongoing	P2, P5
	AoR132 - Gosling Drive	NY398582	Historic issues noted from main river from Gosling Syke affecting properties.	EA have completed works in this area. Watching brief.	LLFA	Ongoing	P2, P5
	AoR133 - Edentown	NY395574	Last flooding event was within 2015.	Etterby Terrace (EA funded scheme). Watching brief.	EA	Ongoing	P2, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR101 - Borland Avenue	NY421552	This area frequently floods from surface water as a result of siltation of culverts.	There is a need to construct a catch pit to collect silt to be able to less frequently and more readily maintain the culvert. There is also a need to undertake culvert repairs.	LLFA	2022-24	P1, P2, P4, P5
	AoR102 - Castle Carrock	NY542554	Surcharging of the highway drainage system during extreme precipitation events.	In heavy rainfall events the drainage system overflows. Ideally incorporate a SuDS system on the village green. To work with UU to work together on this to take water out and put into the combined sewer.	LLFA, UU	2025-26	All

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR115 - Rockcliffe	NY358617	Surface Water flood risk due to an ageing and collapsing drainage network. The main cause of the flooding was the tidal surge up the Solway estuary combined with the low pressure weather system of Storm Eleanor. This resulted in 10 dwellings in the Rockcliffe Coast Road / School Lane area suffering from internal flooding.	Initial Assessment Study was completed in 2021. CCC have worked closely with the Environment Agency to understand the full scope of the flooding that has occurred. The Culvert to the north west of the estate needs surveying to determine its integrity including all culverts which feed into the system.	LLFA, EA	2022-23	P1, P2, P4, P5
	AoR141 - Harraby Surface Water Investigation	NY420540	Surface water flooding for rear of properties.	Scheme to be developed as part of the CSR2 programme.	LLFA	2024-26	P1, P2, P4, P5
	AoR142 - The Green, Dalston	NY369500	Residents have currently built a small informal bund. The area is flooding twice annually as a result of under capacity drainage infrastructure and limited storage upstream.	Scheme to be developed as part of the CSR3 programme.	LLFA	2029-31	P1, P2, P4, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR144 - Carlisle	NY396562	Carlisle Appraisal Package. Walls, embankments and channel conveyance improvements.	Scheme may be renamed Caldew FRMS - feasibility studies have commenced. Carlisle Phase 1A complete (raised embankments Tesco to Trinity school) Carlisle Phase 1B going through design (Raised defences Adelaide Street allotments) going through design.	EA	Ongoing	P1, P2, P4, P5
	AoR145 - Low Crosby	NY445594	Appraisal Package Low Crosby. Walls and embankment work.	Complete. Reinstatement ongoing. CCC are developing Local Levy bid for refurbishment of pumping station.	EA	Ongoing	P1, P2, P4, P5
	AoR146 - Corby Weir	NY469553	Corby Weir Fish Pass Project	Holme Eden Gardens only. SOC being worked up. FBC to follow winter 22/23.	EA	Ongoing	P1, P2, P4, P5
	AoR148 - Warwick Bridge	NY476568	Warwick Bridge PFR scheme	Scheme in development.	EA	Ongoing	P1, P2, P4, P5

Carlisle (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle (PVA11)	AoR150 - Warwick Bridge, Trout Beck Mill Leat	NY490550	Flood embankment along mill leat on Cairn Beck.	Scheme in development.	EA	Ongoing	P1

Outwith PVA - Carlisle							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Carlisle	AoR149 - Stockdalewath, River Roe	NY387449	Catchment based approach to flood risk management.	Scheme in development.	EA, LLFA, ERT	Ongoing	P1, P2, P4, P5
Longtown	AoR140 - Longtown Surface Water Alleviation	NY382686	Significant surface water flooding risk to 87 properties in a deprived area. Studies are required to examine the drainage infrastructure, remove surface water from the combined sewers along Old Road which are at capacity and a possible NFM to store surface water on Old Road.	Scheme to be developed as part of the CSR3 programme.	LLFA	2027-29	P1, P2, P4, P5
	AoR147 - Longtown	NY387687	Longtown Flood Storage Reservoir	Scheme in development.	EA	Ongoing	P1, P2, P4, P5
Thurstonfield	AoR103 - Thurstonfield	NY314566	The infrastructure was considered to be past asset life and partially collapsed. This leading to properties flooding bi-annually.	Scheme completed. Watching brief.	LLFA	2021-22	P2, P5

Brampton (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Brampton (PVA11)	AoR113 - Craw Park	NY533610	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief	EA, LLFA	Ongoing	P2, P5
	AoR122 - Moat Side	NY533611	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk. This area is a low point linked to Brampton Beck.	Watching brief	LLFA	Ongoing	P2, P5
	AoR112 - Dacre Road	NY528616	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk. This area is a low point linked to Brampton Beck.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR114 - Brampton Town Centre Surface Water Scheme	NY528610	Study to Investigate 102 properties at significant Surface Water Flood Risk. Modelling at this location is required and may lead to a future project in this location to reduce the surface water flooding risk.	Scheme to be developed as part of the CSR3 programme.	LLFA	2028-30	P1, P2, P4, P5

Keswick (PVA08)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Keswick (PVA08)	AoR201 - Threlkeld Village	NY320253	This project will consider surface water flooding near to Blease Road in Threlkeld. Cumbria County Council have had several reports of internal flooding and multiple near misses to internal flooding for 5 properties. Up to 32 properties are currently within the 1 in 100 year outline.	Part of the CSR2 programme. There is a need to consider SuDS features and upland attenuation to reduce flood risk to properties.	LLFA, EA	2021-22	All
	AoR315 - St Kentigerns Close, Keswick	NY261240	The project will look at the potential for NFM and infrastructure improvements in order to attenuate more water upstream of Keswick in the event of heavy rainfall.	Scheme to be developed as part of the CSR3 programme.	LLFA	2027-28	P1, P2, P4, P5
	AoR301 - Brundholme Gardens, Keswick	NY271237	Surface water flooding affecting 4 properties.	S19 was completed in 2016. Part of the CSR2 programme. Works almost complete, implementing a new surface system completely bypassing Brundholme Gardens.	LLFA	2020-22	P1, P2, P4, P5
	AoR231 - Threlkeld	NY325254	Issue on the Culvert at Gategill Beck.	Repairs have been carried out on this Culvert.	EA	Ongoing	P1, P2, P4, P5

Penrith (PVA10)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR202 - Pooley Bridge	NY470244	Flooding issues due to wave action associated during strong winds and prolonged heavy rainfall.	S19 Report was completed in 2017. As part of programme, hard engineering or NFM measures are required to be considered and implemented.	LLFA, EA	2020-22	P1, P2, P4, P5
Penrith (PVA10)	AoR225 - Penrith Town Centre Surface Water	NY514303	Reduction of surface water flood risk to properties by undertaking infrastructure improvements.	Infrastructure improvements required. Scheme to be developed as part of the CSR3 programme.	LLFA	2027-29	P1, P2, P4, P5
	AoR223 - Stainton, Penrith Surface Water Scheme	NY485280	Reduction of surface water flood risk through the introductions of SuDS features.	Scheme to be developed as part of the CSR3 programme.	LLFA	2027-29	P1, P2, P4, P5
	AoR227 - Cliburn Surface Water Scheme	NY587247	This project will look to use a combination of SuDS and NFM features to attenuate water away from properties.	Scheme to be developed as part of the CSR3 programme.	LLFA	2027-28	P1, P2, P4, P5
	AoR233 - Eamont Bridge	NY522287	Flood alleviation scheme based on walls and embankments.	Some work completed but with elements still to be implemented.	EA	Ongoing	P1, P2, P5

Gamblesby, Glassonby, Lazonby, Plumpton (PVA11)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Gamblesby, Glassonby, Lazonby, Plumpton (PVA11)	AoR203 - Gamblesby	NY609395	Magnitude of storm event couldn't handle the volume of water. Sheeting off land. Watercourses have been diverted so caused exceedance and channels have been constructed quite narrow. Eastern side of village, the channel very narrow. 1 resident wont allow access to widen it, just put in a parking area - but not his land, has abandoned car, trailer/rubbish etc to consider widening that section.	S19 Report was completed in 2014. Some NFM done with ERT in the catchment above and some improvement done on A686 by Highways to redirect waterflow to original catchment. Small scale interventions. Watching brief.	LLFA, ERT	Ongoing	P1, P2, P4, P5
	AoR204 - Glassonby	NY576387	Surface Water Flooding. Some work been done by Highways, acts as a corridor and channels through Glassonby. Channel towards a few properties and put in traffic cushions/gullies to collect it. Thought some NFM may help. Meeting with ERT approx 12 months ago, looking at similar project. Liaise with ERT. Will be difficult for upstream attention due to village layout. Have not had any repeat issues since the highways interventions above.	S19 Report was completed in 2014. Part of the CSR2 programme. A requirement to assess SuDS and NFM to reduce flood risk to properties.	LLFA, ERT	2024-25	All
	AoR234 - Lazonby, Harrow Beck	NY547396	Works to existing culvert and access crossings in order to improve conveyance.	Scheme in development.	EA	Ongoing	P1

Nent (PVA12)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Nent (PVA12)	AoR207 - Chapel Terrace AoR208 - Bruntley Meadows AoR209 - Overburn	NY782439 NY719460 NY720463	In 2013, 39 properties in 7 areas across Alston were affected by flooding from Main River, ordinary watercourses, surface water and surcharging drainage systems. This is linked to surface water runoff down carriageways. A historic Mill Race to which drainage feeds is likely to be main driver of flood risk in the area.	Initial Assessment Study was completed in 2020. CSR2 scheme ongoing, possible tree planting still to be implemented.	LLFA, EA	2017-23	P1, P2, P4, P5
	AoR210 - Station Road	NY717465	Surface water flooding affecting a number of properties in heavy rainfall.	Some repairs were carried out following Flood Investigations and the site will continued to be monitored. Partly considered with EDC along with adhoc repairs and modification and no longer had any issues at this site. Watching brief.	LLFA, UU, EDC	2017-23	P2, P5

Nent (PVA12)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Nent (PVA12)	AoR211 - Nentsberry	NY759451	Surface water flooding and overtopping from Ordinary watercourse.	Water improvements worked have been completed by the Coal Authority and make improvements as part of their scheme. Further Natural Flood Management interventions required. Watching brief as improvements completed by the Coal Authority.	LLFA, Coal Authority	2025-26	P2, P5

Greystoke (PVA13)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Greystoke (PVA13)	AoR213 - Greystoke	NY440308	<p>Greystoke has been affected by localised surface water flooding in the past at Howard Park. 4 residential properties as well as gardens and roads have been flooded frequently (2 - 5 years).</p> <p>Looking at NFM with Rivers Trust and Natural England - NFM and storage. ERT doing some NFM between Greystoke and Johnby Hall. Working with Local Landowner to consider more works on Greystoke Castle.</p>	<p>S19 Report was completed in 2016.</p> <p>Part of the CSR2 programme. Upsizing of culvert through Howard Park. NFM solutions to provide upland storage and slow the flow. Maintenance of ordinary watercourse.</p>	LLFA, NE, ERT	2020-22	P1, P2, P4, P5

Shap (PVA14)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Shap (PVA14)	AoR214 - Shap	NY562153	<p>Culverted system overwhelmed by volume of water during extreme flood events resulting in surface water flooding.</p>	<p>S19 Report was completed in 2016.</p> <p>Currently at appraisal stage of the scheme. Project currently ongoing as part of the CSR2 programme. The project is seeking to provide upstream storage to reduce the flow towards the village.</p>	LLFA, NE, NWR	2021-24	P1, P2, P4, P5

Sedburgh/Kirkby Lonsdale/Tebay (PVA18)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Sedburgh/ Kirkby Lonsdale/ Tebay (PVA18)	AoR215 - Tebay	NY618044	On the 5 December 2015 an extreme rainfall event (Storm Desmond) caused flooding in Tebay. It was in the Old Tebay part of the village that flooding to 13 properties took place. The flooding was caused by the cumulative effect of Storm Desmond and the three proceeding storms, which caused the ordinary watercourse Tebay Gill Beck to the south east of Old Tebay bursting its banks, the main river Lune spilling into the same area from the north and finally surface water from overwhelmed highway drainage on the local roads.	Initial Assessment Study was completed in 2016. Part of the CSR2 programme. Bunds are required to limit the exceedance of water from channel and overland towards properties. Potential partnership working opportunities with YDNP and Lune Valley Trust.	LLFA, YDNP, LVT	2023-24	P1, P2, P4, P5

Kirkby Stephen (PVA19)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kirkby Stephen (PVA19)	AoR216 - South Road/ Birbeck Gardens	NY770075 NY772076	Surface water flooding affecting properties from overland flow from fields, overwhelming the drainage system.	Initial Assessment Study was completed in 2016. Appraisal completed in 2021. Exceedance of Culvert capacity and part of the CSR2 programme. EA consultation as currently done through MSfWG meetings and working with UU.	EA, LLFA, UU	2021-23	P1, P2, P4, P5
	AoR220 - Station Yard	NY769075	Surface water flooding affecting properties from overland flow from fields, overwhelming the drainage system.	Initial Assessment Study was completed in 2016. Appraisal completed in 2021. Part of the CSR2 Programme. NFM to be explored.	LLFA	2021-23	P1, P2, P4, P5
	AoR218 - High Street	NY773083	Main river issue. Exceedance of Croglam Beck in heavy rainfall.	Initial Assessment Study was completed in 2016. Appraisal completed in 2021. Following the appraisal, the EA to review this area of Kirkby Stephen.	EA, LLFA	2021-23	P1, P2, P4, P5

Kirkby Stephen (PVA19)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kirkby Stephen (PVA19)	AoR222 - Pennine View Caravan Park	NY771074	Surface water flooding affecting properties from overland flow from fields, overwhelming the drainage system.	Initial Assessment Study was completed in 2016. Appraisal completed in 2021. Part of the CSR2 programme. Culvert improvements taking place 2022.	LLFA	2021-23	P1, P2, P4, P5

Outwith PVA - Eden							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Appleby	AoR229 - Appleby	NY681205	Refurbishment of existing infrastructure.	This capital maintenance project will ensure correct ventilation of the penstock/pump chambers. There is currently a risk of explosive gases (arising from the sewer) building up in the chambers and creating an explosive atmosphere.	EA	Ongoing	P1, P2, P4, P5
	AoR232 - Appleby	NY684205	Flood Gate replacement.	Scheme in development.	EA	Ongoing	P1, P2, P4, P5

Outwith PVA - Eden							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Appleby	AoR235 - Appleby Town Centre Appraisal	NY682203	New Doomsgate pumping scheme.	Working through funding arrangements. Construction potentially after horsefair 2023.	EA	Ongoing	P1, P2, P4, P5
Millhouse	AoR324 - Millhouse	NY363376	A floodbank protects 9 properties from the River Caldew at Millhouse but there is also a highways flooding issue. Cumbria Highways have installed large gullies and extra pipework to try and deal with the overland flows but some properties are still vulnerable in extreme rainfall events.	Embankment asset is failing but no funding currently available. Potential to reduce length of embankment and give more space to the river. Community is looking into contributions in kind.	EA	Ongoing	P1, P2, P5
Renwick	AoR224 - Renwick	NY597434	Property level protection will be installed on 9 properties to reduce the risk of internal flooding from a surcharging Ordinary Watercourse at the north end of the village.	Scheme to be developed as part of the CSR3 programme.	CCC	2029-30	P1, P2, P4, P5
Shap	AoR226 - Croglin, Croglin Beck Cumbria	NY574472	Properties are affected by a combination of flooding from an Ordinary Watercourse and surface water. An appraisal to investigate the potential benefits of upsizing a drain/culvert through the village is required.	Scheme to be developed as part of the CSR3 programme.	CCC	2027-29	P1, P2, P4, P5

Outwith PVA - Eden							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Temple Sowerby	AoR228 - Temple Sowerby Surface Water Scheme	NY610271	The project will consider ways to reduce surface water flood risk to properties through SuDS features.	Scheme to be developed as part of the CSR3 programme.	CCC	2031-33	P1, P2, P4, P5
Plumpton	AoR205 - Plumpton	SP598483	Flooding during heavy rainfall event creating large volumes of surface water that overwhelms watercourse and in particular the culverted section from the B6413 to the A6. East side. Petteril Terrace, part of the EA and looking at issues.	S19 Report was completed in 2016. Previous worked has taken place to clear culvert. Part of the CSR2 programme. There requires to be consideration of NFM, bunds etc.	LLFA, EA	2024-25	P1, P2, P4, P5

Maryport (PVA09)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Maryport (PVA09)	AoR309 - Gill Beck	NY052360	During Storm Desmond, small watercourses became inundated with roads becoming major flow routes for floodwater leading to the flooding of approximately 50 properties. Maryport has two small watercourses that join the larger River Ellen before flowing out to sea, Eel Syke and Gill Beck.	S19 Report was completed in 2017. Main river issues, the EA are monitoring this area. Watching brief.	EA, LLFA	2023-26	P2, P5
	AoR306 - Main Road	NY025348	During Storm Desmond, small watercourses became inundated with roads becoming major flow routes for floodwater leading to the flooding of approximately 50 properties. Maryport has two small watercourses that join the larger River Ellen before flowing out to sea, Eel Syke and Gill Beck.	S19 Report was completed in 2017. Watching brief.	LLFA	Ongoing	P2, P5
	AoR306 - Grasslot Street	NY033358	Grasslot Street is at pluvial and fluvial risk as a product of undersized poor condition drainage infrastructure. The last significant event occurred in December 2015 during storm Desmond. The onset of flooding is consider to be a circa 1 in 30 year event.	S19 Report was completed in 2017. Currently part of the CSR2 programme to review NFM improvements. There is a need to improve flows to reduce flood risk.	LLFA	2026-28	P1, P2, P4, P5

Maryport (PVA09)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Flimby (PVA09)	AoR302 - Flimby	NY020338	During Storm Desmond, watercourses became inundated with road becoming major flow routes for floodwater leading to the flooding of approximately 100 properties. Rainwater poured off the hillside, washing away footpaths in Flimby Great Wood, and inundating watercourses and surface water systems through Flimby before flowing out to sea.	S19 report was completed in 2017. Part of the CSR2 programme. This project will consider all areas at surface water flood risk that were not considered as a part of the Flimby scheme undertaken by the EA. Flimby regularly floods and works is required to improve upland storage through NFM measures and to undertake works to the existing surface water network.	LLFA, EA	2020-22	P1, P2, P4, P5
Seaton (PVA09)	AoR308 - Seaton	NY018311	During Storm Desmond, small watercourses became inundated with roads becoming major flow routes and failure in infrastructure becoming compromised this resulting in the internal flooding of 9 properties.	S19 Report was completed in 2017. EA completed work to Ling Beck. Minor works been completed by CCC on Lowca Lane. Watching brief.	LLFA, EA	Ongoing	P2, P5

Maryport (PVA09)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Ewanrigg (PVA09)	AoR307 - Ewanrigg	NY042355	Flooding of roads and grassland.	Working with developer. Separate surface water system to ordinary watercourse.	LLFA	tbc	P1, P2, P4, P5
Hindrigg (PVA09)	AoR304 - Beech Hill	NY152428	Small degree of flooding from surface water ponding in the past. 5 properties affected. The car park and roads flooded previously.	Watching brief.	LLFA	Ongoing	P2, P5

Outwith PVA - Allerdale							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Allonby	AoR316 - Allonby	NY080427	River flooding Flood Risk Management Scheme	Scheme in development.	EA	Ongoing	P1, P2, P4, P5
Braithwaite	AoR317 - Braithwaite	NY231237	River flooding Flood Risk Management Scheme	Scheme in development.	EA	Ongoing	P1, P2, P4, P5
Skinburness	AoR318 - Skinburness	NY122556	River flooding	Scheme in development.	EA	Ongoing	P1, P2, P4, P5
Waver Wampool	AoR325 - Waver Wampool Drainage Investigation	NY187509	Project will support a recommendation for the future of a number of assets in the Waver and Wampool drainage areas, and deliver this recommendation with the support of the community. Options may include the formation of a new Internal Drainage Board, community consortiums, or wetter farming and disposal of assets.	EA is working with the community and local land owners to identify long term options for managing drainage in the area.	EA	Ongoing	P1, P2, P4, P5

Outwith PVA - Allerdale							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Harrington	AoR320 - Harrington, River Wye FRM Scheme	NX992255	Wolsty Pumping Station Capital Maintenance	Scheme in development.	EA	Ongoing	P1, P2, P4, P5
Silloth	AoR321 - Wolsty	NY104502	Wolsty Pumping Station Capital Maintenance	Scheme in development.	EA	Ongoing	P1, P2, P4, P5
Wigton	AoR322 - Speet Gill, Wigton	NY264481	Flooding from Speet Gill into the Burnfoot area of Wigton. Heavily modified section of watercourse through the town with no room for increasing capacity.	Modelling work and initial landowner negotiations started for providing upstream storage to enable a flood warning.	EA, Wigton Town Council	Ongoing	P1, P2, P4, P5
	AoR323 - Wiza Beck / Station Road, Wigton	NY253489	Flooding from Wiza Beck primarily affecting Station Road but also the Innovia factory.	2012 flood storage basin constructed to enable a flood warning on the rapidly responding catchment. Flood Warning area being formally created. Action plan enabled by EA.	EA	Ongoing	P1, P2, P4, P5

Outwith PVA - Allerdale							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Workington	AoR314 - Workington Flood Risk Study	NX997282	There have been multiple near misses in relation to Surface Water flooding in Workington. The surface water flood maps also show multiple locations which are at significant and very significant flood risk. There is a need to consider the impacts of climate change on the surface water network to understand SuDs and infrastructure upgrade requirements.	Scheme to be developed as part of the CSR3 programme.	CCC	2031-32	P1, P2, P4, P5

Cleator Moor (PVA05)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Cleator Moor (PVA05)	AoR406 - Parkside	NY032153	Surface Water and Fluvial.	Watching Brief and monitor through MSfWG.	LLFA	Ongoing	P2, P5
	AoR403 - William Morris Avenue / Orchard Place	NY024148	Issues with ground water and surface water run off during weather events, low lying properties next to the carriageway suffer from flooding and water running from high ground enters the rear properties on the frontage of the B5295.	Appraisal ongoing to understand surface water flood reduction.	LLFA	2021-23	P1, P2, P4, P5
Egremont (PVA05)	AoR408 - Greenmoor Road	NY008111	Surface water flood risk associated with the combined sewer systems results in frequent flooding.	Currently on CSR2. To work with UU to determine action on this scheme.	UU, LLFA	2022-24	P1, P2, P4, P5
	AoR441 - Skirting Beck, Egremont	NY004110	The beck flows in culvert through Egremont. The capacity and structural condition of the culvert are known to be inadequate combined with surface water drainage issues. Detailed culvert survey and modelling are required to determine a cost effective solution. Skirting beck & Whangs Beck flow in culvert through Egremont. The capacity and structural condition of the culverts are known to be inadequate combined with surface water drainage issues. The proposed scheme includes 3 new flood storage basins, culvert upsizing/ repairs, property level resilience measures and SUDs/ other flow routing measures.	Largely complete but with elements still to be implemented.	EA	Ongoing	P1, P2, P4, P5

Cleator Moor (PVA05)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Egremont (PVA05)	AoR443 - Orgill Estate, Egremont	NY003108	Extensive flooding to a large number of properties on this housing estate occurred in 2012. Results from surface water runoff from agricultural land above the estate and lack of capacity of Skirting Beck culvert which flows under it. Skirting Beck is a main river and the capacity issues are being addressed by the EA.	LLFA support in recovery plan post-2012 floods; highway drainage and Whang Beck culvert investigations; identifying costs and funding sources for PLP. Cumbria Highways have completed various measures to control overland flow routes and divert water away from vulnerable areas. Recording of different drainage systems and relevant responsibilities are ongoing. Flood defence measures introduced to protect Church View estate from surface water flooding complete. EA carrying out optioneering for Skirting and Whangs Becks.	LLFA, EA, Highways, CBC, UU	Ongoing	All

Cleator Moor (PVA05)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Woodend (PVA05)	AoR407 - Woodend	NY219272	Woodend Farm suffered from flooding on 30th August 2012 and again 17th October 2012. The main cause of the flood was that an Ordinary Watercourse is restricted by a culvert which carries the watercourse under a road outside Woodend Farm. A major contributing factor is that surface water is brought to the same location by the roads and fields.	S19 report was completed in 2013. Interventions from Highways have previously taken place. Watching Brief. To be monitored by MSfWG.	LLFA	Ongoing	P2, P5
Lingla Beck (PVA05)	AoR402 - Mill Street	NY033172	Past flooding due to debris building up in Lingla Beck, reducing capacity to manage high flows.	Maintenance schedule to be agreed.	LLFA	tbc	P1, P2, P4, P5
Ennerdale Bridge (PVA05)	AoR409 - Kirkland Road	NY070161	Properties suffer flooding due to close proximity to water course, which when runs with high volumes surcharges back up the surface water system causing carriageway flooding which then effects properties nearby.	Undertake an appraisal to understand if any surface water flooding reductions can be made.	LLFA, EA	2022-24	P1, P2, P4, P5

Whitehaven (PVA06)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Whitehaven (PVA06)	AoR410 - Victoria Road	NX982191	Surface Water flooding from the fields being Victoria Road, Whitehaven during a rainfall event on the 17th October 2012. Heavy prolonged rainfall onto saturated steeply sloping ground caused the following. The resulting surface water runoff overwhelmed any land drainage that was in place at the bottom of the sloping ground and flowed through gardens and between properties onto the road, causing some flooding on the other side. Pluvial flooding rather than fluvial.	S19 report was completed in 2014. Working with National Highways to determine action on this scheme.	LLFA, NH	tbc	P1, P2, P4, P5
	AoR411 - Whitehaven North		Multiple flooding mechanisms contribute in this area, Fluvial, Pluvial and also tidal flooding, main rivers and minor water courses outfall into or near harbour, under right conditions this can lead to multiple areas being affected through surface water flows and surcharging of drainage systems.	Agreement in place with Whitehaven harbour commission to monitor harbour water levels to minimise flooding upstream during weather events, various partnership working with EA, UU and CBC to monitor and reduce risk of flooding. Watching brief through MSfWG.	LLFA, UU, EA	Ongoing	P2, P5

Whitehaven (PVA06)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Whitehaven (PVA06)	AoR412 - Hensingham	NX987167	Historical issues with culverts and local highway drainage, various investigations with partnership have taken place to reduce impact of flooding in this area.	Partnership working with UU, HA, CBC and developers to try and reduce flooding impacts. Currently working up scheme for this area.	LLFA, UU, HA, CBC	tbc	P1, P2, P4, P5
	AoR413 - Whitehaven centre		Historical issues with UU surface water system in this area, surcharging in storm events which causes highway flooding which impacts properties below road level.	Partnership working with UU, HA to reduce impact of flooding. UU are working up a scheme for this area.	LLFA, UU, HA, CBC	tbc	P1, P2, P4, P5
	AoR414 - Meadow Road	NX983156	Historically surface water and overland flows would effect the highway and have potential to impact on properties.	Various small works have been undertaken by landowners and CBC to reduce risk. Watching brief through MSfWG.	LLFA, CBC	Ongoing	P2, P5

Whitehaven (PVA06)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Whitehaven (PVA06)	AoR415 - Mirehouse West	NX983154	Historic issues with the main river of Pow Beck caused property flooding in the 2000s.	Maintenance projects have been undertaken since which have resolved the issues. Watching brief through partnership working with EA and CBC. Part of the CSR3 programme.	LLFA	2027-29	P2, P5
	AoR418 - Rosebank	NX988166	Historic issues in this area believed to be connected with a culvert on Egremont Rd which was blocked causing surcharging of the system upstream on Rosebank.	Highway Authority repaired damaged section of culvert and this appears to have resolved the issue. Watching brief through MSfWG.	LLFA	Ongoing	P2, P5

Whitehaven (PVA06)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Whitehaven (PVA06)	AoR434 - Duke Street	NX975182	Localised drained connected to the culvert struggles to cope with exceedance during in storm events and floods the area as the culvert connects to the harbour.	<p>Agreement in place with Whitehaven harbour commission to monitor harbour water levels to minimise flooding upstream during weather events, various partnership working with EA, UU and CBC to monitor and reduce risk of flooding.</p> <p>Recent survey identified maintenance that requires to be undertaken. A maintenance schedule to be reviewed and agreed.</p>	LLFA, EA, UU, CBC	2025-27	P1, P2, P4, P5

Whitehaven (PVA06)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Whitehaven (PVA06)	AoR437 - Snebra Beck, Whitehaven	NX979168	Surface water flooding during heavy rainfall events.	Investigate NFMs and drainage infrastructure improvements required. Scheme to be developed as part of the CSR3 programme.	LLFA	2030-32	P1, P2, P4, P5
	AoR438 - Lakeland Avenue, Woodhouse, Whitehaven	NX968162	The project will look at local improvements to drainage infrastructure and SuDS features.	Scheme to be developed as part of the CSR3 programme.	LLFA	2030-32	P1, P2, P4, P5
	AoR439 - Honister Road, Whitehaven	NX985154	The area suffers from frequent flood as a result of under capacity and poor condition drainage infrastructure. Can lead to frequent onset of flooding to highway and properties where there are low level thresholds.	Scheme to be developed as part of the CSR3 programme.	LLFA	2030-32	P1, P2, P4, P5
	AoR440 - Coach Road, Whitehaven	NX975174	Flood risk at Coach Road is from a UU combined sewer and highway sewers. Flood risk is also linked to high levels on Pow Beck.	Scheme to be developed as part of the CSR3 programme.	LLFA, UU	2027-28	P1, P2, P4, P5
	AoR442 - Springfield Ave, Whitehaven	NX983174	During heavy rain, the combined system surcharges a manhole causing flooding to properties in 3 separate areas.	Monitoring continues in the MSWG. LLFA investigation made.	LLFA, CBC, UU	Ongoing	P1, P2, P4

Whitehaven (PVA06)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Parton (PVA06)	AoR420 - Parton	NX979205	Historic flooding issues in past (20yrs). Tidal flooding, fluvial & pluvial.	Potential for culvert improvements and need to deal with high water levels in the drainage network as a result of high tides and Storm events.	LLFA	2023-25	P1, P2, P4, P5
Sandwith (PVA06)	AoR416 - Sandwith	NX964146	<p>Sandwith suffered flooding during the excessive rainfall events of the 22nd June and the 30th August 2012. The main cause of the flooding appears to be from surface water runoff from fields previously saturated by a succession of rainfall events, some with durations of nearly 24 hours. Changes in land management practises contributed significantly to flooding in some areas.</p> <p>Blocked highway drainage also contributed to the flooding but this is not usual under the circumstances. The drainage is designed to drain the highway and has insufficient capacity to deal with runoff from large areas of land.</p>	<p>S19 report was completed in 2014.</p> <p>Dealing with on a small scale work for our programme.</p> <p>Construction of a swales and tabletop in highway to divert surface water flows away from vulnerable properties.</p>	LLFA	tbc	P1, P2, P4, P5

Whitehaven (PVA06)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Moresby Park (PVA06)	A0R417 - Moresby Park	NX999186	Historic flooding issues at Station House, School Brow, Moresby Park. Surface water systems capacity isn't large enough which outfalls through a sandstone culvert underground across new private estate to watercourse heading to low Moresby. The Culvert manhole surcharges and enters the foul system causing flooding at various point within Moresby Park including Station House.	CCC working with potential developer on a proposed site at School Brow to install an overflow pipe from the culvert manhole through the new development site and outfall into an attenuation pond before linking up with the watercourse that runs to Low Moresby. Designs need to be finalised but this should reduce surcharging of the culvert manhole and stop surface water overflow getting into the foul system.	LLFA	tbc	P1, P2, P4, P5

Bootle (PVA15)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Bootle (PVA15)	AoR421 - Mill Street	SD108882	Flooding from river overtopping. NFM has been done however flooding is still an issue.	Currently arranging CCTV to understand the culvert in this area. Currently further assessing this area to understand issues. Following results of the assessment, a future scheme will be considered in Partnership with WCRT.	LLFA, EA, WCRT	2023-26	P1, P2, P4, P5
	AoR422 - Annaside	SD090866	Fluvial concerns.	Watching Brief.	LLFA	2023-26	P2, P5
	AoR436 - River Annas, Bootle	SD085872	Surface water run off from the lake district fells in significant rainfall events travels to the River Annas via overland flow. The river in circa a 1 in 20 year event breaches it's banks near to Hinninghouse Bridge flood farmland and properties.	There is a need to consider NFM solutions to attenuate peak flow in order to avoid property flooding.	LLFA	2024-26	P1, P2, P4, P5

Millom (PVA16)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Millom & Haverigg (PVA16)	AoR427 - Holborn Hill AoR430 - Millom Centre AoR432 - Finch/Settle Street	SD169803 SD172803 SD171804	In Sept 2017 an intense rainfall event occurred. The rain overwhelmed the drainage systems and surface water began to rise, flooding an estimated 255 residential properties.	S19 Report was completed in 2018. Initial Assessment was completed in 2020. Currently part of the CSR2 programme. Construction of new flood prevention system to improvements to Surface Water Flood Risk which is combined with the public sewer system.	LLFA, UU	2021-23	P1, P2, P4, P5

Millom (PVA16)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Millom & Haverigg (PVA16)	AoR428 - Mainsgate Road AoR431 - Wasdale/Oxford Street	SD174796 SD178796 SD175797	In Sept 2017 an intense rainfall event occurred. The rain overwhelmed the drainage systems and surface water began to rise, flooding an estimated 255 residential properties.	S19 Report was completed in 2018. Initial Assessment was completed in 2020. Currently part of the CSR2 programme. Construction of new flood prevention system to improvements to Surface Water Flood Risk which is combined with the public sewer system.	LLFA, UU	2021-23	P1, P2, P4, P5

Millom (PVA16)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Millom & Haverigg (PVA16)	AoR429 - Moor Park	SD168800	In Sept 2017 an intense rainfall event occurred. The rain overwhelmed the drainage systems and surface water began to rise, flooding an estimated 255 residential properties.	S19 Report was completed in 2018. Initial Assessment was completed in 2020. Currently part of the CSR2 programme. Construction of new flood prevention system to improvements to Surface Water Flood Risk which is combined with the public sewer system.	LLFA, UU	2021-23	P1, P2, P4, P5

Outwith PVA - Copeland							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Cleator Moor	AoR401 - Norbeck Park, Cleator Moor	NY012154	Historical issues with the culvert inlets to the main rivers which was resolved through work undertaken by the EA.	Appraisal ongoing to understand surface water flood reduction.	LLFA, EA	2021-23	P1, P2, P4, P5
Ravenglass	AoR426 - Ravenglass	SD084962	Heavy rainfall had led to overland flows running onto carriageway and then making its way down towards the lowest point at the railway bridge leading to property flooding, surface water outfalls onto beach which can be hindered by high tides and relies on flap valve to prevent tidal surcharging of the system.	Section 19 report completed in 2012. Various small works undertaken since 2012 through Highway Authority to replace pipework and flap valves in local area, further works to take place 2022 with further interventions to reduce flood risk.	LLFA, EA	2021-23	P1, P2, P4, P5

Ulverston (PVA02)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR506 - Kennedy Street	SD303779	Very flat and low lying area with high groundwater. No apparent discharge for Kennedy Street drain and all surface water discharges into the UU combined system. Potential issues with the hydraulic capacity of the UU system.	Watching brief.	EA, LLFA, EA	Ongoing	P2, P5
Ulverston (PVA02)	AoR560 - Becksie Road, Ulverston Surface Water Scheme	SD284788	Surface water flood flows that pass over Old Hall Road and then along Becksie Road. The source of the flood water is a Mill Race.	Due to the number of properties at risk and the severity of flooding, only small scale intervention would be appropriate. The capacity of the highway culvert should be assessed and options for increasing its capacity should be considered.	EA, LLFA, SLDC	2028-29	P1, P2, P4, P5

Ulverston (PVA02)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Ulverston (PVA02)	AoR565 - South Ulverston Integrated FRMS	SD291776	Integrated pluvial and fluvial scheme including the upper catchments of Dragley Beck and Lund Beck in Ulverston, based upon IA and new Integrated modelling project. Initial appraisal identified a number of viable options to protect 248 properties. Within the urban area, the area of scope will be primarily focused south of the railway line incorporating the Well Lane, Rydal Road, Low Mill, Outcast and North Lonsdale Road areas. The areas associated with Newlands/Black Drain and Croftlands are not included in the scope as these cells to not impact the main South Ulverston area. Due to coastal (sea level rise) predictions a coastal scheme will be required in 50 years to reduce the properties from increased risk of tidal flooding.	Modelling to be completed October 2022. This project may be paused. CCC are still looking at Kennedy Street Area. This project may have significant environmental enhancement opportunities rather than traditional FRMS approach.	EA	Ongoing	P1, P2, P4, P5

Windermere (PVA03)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Bowness-on-Windermere (PVA03)	AoR532 - St Martin's Parade AoR548 - Crag Brown	SD403969	Surface water flood risk shown by modelling. No confirmed reports of surface water flooding. Uncharted culverted watercourse likely to be present.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR533 - South Terrace	SD405971	On route of culverted watercourse and has previously experienced flooding from culvert exceedance and surface water.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR524 - Lake Road/ Thornbarrow Road	SD405971 SD412976	Exceedance of culverted Main River has exceeded into connected drainage systems (private, public, and highway).	Watching brief.	LLFA, UU	Ongoing	P2, P5
	AoR524 - Lake Road / Craig Walk	SD405971	Complex series of culverted Main River and Ordinary Watercourses come together at this location. Exceedance has caused flooding.	Part of the CSR3 programme. Look for opportunities to provide improvements to culverted watercourses.	LLFA	2027-29	P1, P2, P4, P5
	AoR525 - Mountain Ash Court	SD408989	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR550 - Patterdale Road	SD406993	Overland flow from fells to the north partnered with watercourse exceedance has resulted in past flooding.	Watching brief.	LLFA	Ongoing	P2, P5

Windermere (PVA03)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Bowness-on-Windermere (PVA03)	AoR562 - Kendal Appraisal Package Backbarrow and Windermere FRM Scheme	SD367864	Flood risk occurs when Windermere lake level rises because water enters the lake faster than it can be released at Newby Bridge. Further down stream there is flood risk from the River Leven at Newby Bridge and Backbarrow. A flood risk management scheme would need to look at increasing the capacity of the lake outlet and linear defences at Newby Bridge and Backbarrow.	In progress. Above ground pipeline option being appraised in partnership with WLLG.	EA	Ongoing	P1, P2, P4, P5
	AoR558 - Bellman Close, Windermere	SD394940	Localised drainage infrastructure improvements and SuDS features.	Scheme to be developed as part of the CSR3 programme.	LLFA	2028-29	P1, P2, P4, P5
Ambleside (PVA03)	AoR504 - Greenbank, Ambleside Surface Water Flooding	NY375048	Surface water flooding from runoff coming off upper field which runs through the wall into the student flats area across the garden through fences into other gardens.	S19 Report was completed in 2017. Design currently being progressed with EA and landowner.	LLFA	2022-24	P1, P2, P4, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR540 - Collin Road	SD511912	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief	LLFA	Ongoing	P2, P5
	AoR541 - Bellingham Road	SD512909	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief	LLFA	Ongoing	P2, P5
Kendal (PVA04)	AoR537 - Blind Beck	SD514921	Surface water flooding has occurred around Blind Beck which is a karstic watercourse that usually has a dry channel and flows underground. Highly urbanised channel disconnected from any floodplain.	Review catchment of watercourse, channel of watercourse, and routes for surface water to connect to channel. A study if required to be undertaken to understand improvements required to be made to the culvert.	LLFA	tbc	P1, P2, P4, P5
	AoR539 - Romney Road	SD515915	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief	LLFA	Ongoing	P2, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kendal (PVA04)	AoR539 - Highgate	SD515922	<p>On the 28th June 2012 an extreme rainfall event caused flooding in the Highgate and Kirkland area of Kendal.</p> <p>Nine commercial properties and parts of the Highgate and Kirkland sections of the A6 were affected by the surface water flooding. The A6 became impassable to vehicles for a time. The highway and public sewer drainage systems became overwhelmed with the surface water flow to the Highgate and Kirkland areas as it is likely their design criteria was exceeded by the rainfall event.</p>	<p>S19 Report was completed in 2013.</p> <p>Cleaning and improvement works have been carried out by both United Utilities and CCC Highways following the event, but it is unlikely that existing drainage systems would be able to cope with a rainfall event of this intensity.</p> <p>Part of the CSR2 programme.</p> <p>Exceedance flood routing to be reviewed.</p>	LLFA, EA	2022-24	P1, P2, P4, P5
	AoR543 - Sandylands	SD525932	<p>Initial flooding from Stock Beck occurred as the capacity of the underground culverted watercourse system was exceeded, followed by overtopping of the Stock Beck Flood Storage Basin.</p>	<p>S19 report was completed in 2018.</p> <p>EA project to be completed in 2023.</p> <p>Following this, watching brief.</p>	EA	2023	P2, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR542 - Hallgarth	SD509942	Surface water runoff from multiple directions comes together and joins sewer causing surface water and sewer flooding.	S19 report was completed in 2013. Part of the CSR2 programme. Reviewing works to create a storage area to accommodate runoff from extra highway gullies.	UU, LLFA, HA	tbc	P1, P2, P4, P5
Kendal (PVA04)	AoR503 - Carus Green, Kendal	SD513951	Flooding due to exceedance of culverted watercourse.	S19 Report was completed in 2016. Project ongoing to deliver flood relief culvert, watching brief thereafter.	LLFA	2020-22	P1, P2, P4, P5
	AoR508 - Lowther Park, Kendal	SD527923	Surface water flood risk from overland flows ponding in low lying area affecting up to 49 properties in the area. Flooding has also occurred due to infiltration into the public sewer.	S19 Report was completed in 2016. Part of the CSR2 programme. Project to reduce surface water flood risk through the adoption of SuDS measures and improvements to infrastructure.	LLFA	2023-24	P1, P2, P4, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kendal (PVA04)	AoR512 - Rinkfield, Kendal	SD519909	Flood risk to properties if surface water in field exceeds. Contributions to flood risk from drainage exceedance.	S19 Report was completed in 2016. Watching brief. Project in design phase.	LLFA	2023-25	P1, P2, P4, P5
	AoR554 - Low Garth	SD508940	Surface water flooding affecting 16 properties due to exceedance of drainage network.	Currently in Design and construction phase - complete by end of July. Upsizing of existing of surface water pipework and new pipework. Construction of SuDS pond.	LLFA	2020-22	P1, P2, P4, P5
	AoR552 - Vicarage Drive, Kendal	SD515916	Properties affected by surface water flooding due to culvert in poor condition.	Scheme to be developed as part of the CSR2 programme.	LLFA	2026-27	P1, P2, P4, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kendal (PVA04)	AoR563 - Kendal	SD524935	Appraisal Package Kendal Flood Risk Management Scheme.	<p>Consider the following options. Provision of additional flood storage capacity in the upstream reaches of the Stock Beck catchment, including an increase to the capacity of the existing flood storage reservoir on the south and east tributaries and the creation of formal upstream storage on the north tributary.</p> <p>Creation of formal flood storage areas upstream of Kendal to attenuate flood flows from the Rivers Kent and Mint.</p>	EA	Ongoing	P1, P2, P4, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kendal (PVA04)	AoR563 - Kendal (continued)	SD524935	Appraisal Package Kendal Flood Risk Management Scheme.	Provision of raised defences along the entire reach of the Rivers Kent and Mint, from Mint Bridge Road in the north to Kendal Wastewater Treatment Works in the south. Compensatory flood plain storage would be required as part of this option.			
	AoR564 - Lyth Valley	SD492856	Lyth Valley Drainage investigations	Lessonhall Drainage Investigation.	EA	Ongoing	P1, P2, P4, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kendal (PVA04)	AoR566 - Burnside (Steels Row, Bridge Street)	SD517936	Drainage, sewers and surface water occurs every 2-3 years flooding 5 residential properties.	UU working on solution and non-return valve (NRV) installed and aim to divert surface water downstream of NRV. Wall on Bridge Street repaired by EA. SLDC investigating culvert that comes through Croppers Mill. MSfWG continuing to work with Flood Action Group to progress works to reduce flood risk.	LLFA, SLDC, EA, UU	Ongoing	P1, P2, P4, P5

Kendal (PVA04)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Kendal (PVA04)	AoR567 - Staveley	SD468981	Properties at risk of flooding from River Gowan/River Kent and surface water.	LLFA have delivered Flood Investigation report to community regarding surface water flooding event that occurred in 2012. EA have carried out works in 2013 on River Kent upstream of Staveley to reduce the levels and reconnect the river to its flood plains. Repairs required to damaged weir to be investigated.	LLFA, EA	Ongoing	P1, P2, P5
Grasmere (PVA04)	AoR513 - Rydal, Grasmere	NY363063	Surface water flood risk from overland flow route from fields, along with blocked watercourse.	S19 Report was completed in 2016. Scheme has been designed, delivery planned for 2022 .	LLFA	2021-22	P1, P2, P4, P5

Burton in Kendal (PVA017)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Burton in Kendal (PVA17)	AoR546 - Burton in Kendal	SD530764	Surface Water and ordinary watercourses from land to east causing flooding at various locations.	Project in design phase for conveyance of flow away from Burton in Kendal. Look at NFM project to reduce flow into Burton in Kendal.	LLFA, HA	2024-26	P1, P2, P4, P5
	AoR514 - The Tannery, Burton in Kendal	SD528766	Flooding was a result of the extreme rainfall over a short period of time resulting in overland surface water flows from rural areas above the village, ground water and existing pipework/ culverts become overwhelmed.	Outline design complete.	LLFA	2024-26	P1, P2, P4, P5
Holme (PVA17)	AoR544 - Mayfield Avenue	SD522790	Groundwater flooding reported. Possibly related to perched soakaways and confinement from development platform related to previous development.	Study required to understand any groundwater issues.	LLFA	tbc	P1, P2, P4, P5
	AoR545 - Milnthorpe Road	SD521788	Surface water flood risk shown by modelling. Culverted watercourse capacity issues.	Watching brief.	LLFA, HA	Ongoing	P2, P5

Burton in Kendal (PVA017)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Holme (PVA17)	AoR511 - North Road	SD524789	Groundwater flooding through karstic limestone and issues with culverted watercourse (stone culvert) under North Rd .	S.19 report completed 2018. Part of the CSR2 programme to re-route highways culvert to be completely under road. Following completion, watching brief.	LLFA	2021-22	P1, P2, P4, P5

Sedbergh/Kirkby Lonsdale/Tebay (PVA18)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Sedbergh/ Kirkby Lonsdale/ Tebay (PVA18)	AoR505 - Guldrey Rd, Sedbergh	SD651920	Surface water flooding due to run-off from upper fells towards Guldrey Lane and Rd area.	Initial Assessment Study was completed in 2017. Project being progressed as part of CRS2.	LLFA	2022-23	P1, P2, P4, P5
	AoR509 - Main Street, Kirkby Lonsdale	SD611786	Legacy drainage capacity issues. Urban location.	Placeholder for a future project.	LLFA	2026-27	P1, P2, P4, P5
	AoR501 - Biggins Road, Kirkby Lonsdale	SD606784	Culvert exceedance and surface water runoff from fields gets conveyed by the public highway and can't get back into discontinuous drainage system.	Potential for NFM upstream. Culvert route is unknown so could be plotted and improved where necessary. Exceedance flood routing. PLP and resilience measures for school and supermarket.	LLFA	2026-27	P1, P2, P4, P5
	AoR553 - Queens Square, Kirkby Lonsdale	SD610787	Abbotsgate culvert.	Scheme to be developed as part of the CSR3 programme.	LLFA	2027-28	P1, P2, P4, P5

Outwith PVA - South Lakeland							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Humphrey Head	AoR561 - Humphrey Head Managed Realignment	SD387746	Humphrey Head Managed Realignment.	SOC being devised through Wyre BC ECO-CoBS.	EA	Ongoing	P1, P2, P4, P5
Flookburgh	AoR556 - Fairfield, Flookburgh	SD366760	Improvements to highway drainage.	Scheme to be developed as part of the CSR3 programme.	LLFA	2028-29	P1, P2, P4, P5
Grange over Sands	AoR555 - Lindale Surface Water Scheme	SD416805	Ongoing surface water investigation is being undertaken in area. There is a moderate flood risk to properties. There is a need for local SuDS improvements.	Requirement for local SuDS improvements. Scheme to be developed as part of the CSR3 programme.	LLFA	2027-29	P1, P2, P4, P5
	AoR551 - Yewbarrow Terrace, Grange over Sands	SD410781	The project will look to consider a seepage cut-off and overland cut-off route to exclude flood water from the vicinity of the properties. This may be achieved through Property Level Protection.	Scheme to be developed as part of the CSR3 programme.	LLFA	2027-29	P1, P2, P4, P5
	AoR507 - Kents Bank Road, Grange over Sands	SD402771	Surcharging combined system due to hydraulic capacity and highway drainage going into the combined system.	This is on the CSR2 programme. It is likely SuDS features will be employed in order to reduce surface water in to the sewer system.	LLFA	2023-25	P1, P2, P4, P5

Outwith PVA - South Lakeland							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Middleshaw	AoR510 - Middleshaw	SD415976	There has been overtopping of a watercourse 'Middleshaw Beck' on frequent occasions resulting in flooding of one property.	Possibly remove restrictions of watercourses or provide exceedance routes. PLP.	LLFA	2025-26	P1, P2, P4, P5
Beetham	AoR547 - Beetham	SD497794	During significant events the water depth in the river does not allow the surface water to discharge. This leads to backing up of water in the surface water network leading to flooding of 12 properties.	S19 report complete 2021. The scheme is currently in development. The project currently ongoing as part of the CSR2 programme.	LLFA	2021-23	P1, P2, P4, P5

Barrow (PVA01)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR604 - Silverdale Street	SD202693	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR607 - Harrel Lane	SD213704	AoR on line of an historic watercourse which is partially culverted and partially within the UU surface water sewer. Exceedance occurs into combined system and onto the highway causing flooding to several properties.	Scheme progressing. Investigation and modelling initially to explore options.	LLFA, UU	Ongoing	P1, P2, P4, P5
Barrow (PVA01)	AoR608 - Abbots Vale	SD212694	AoR on line of an historic watercourse which is partially culverted and partially within the UU surface water sewer. No recent reports of flooding.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR612 - Wheatclose Road	SD207712	On line of historic watercourse, Problem has occurred during heavy rainfall, but not since 2012, gullies unable to cope with amount of water. UU upsized Combined system from 225 to 300mm, however flooding has returned. Unmapped culvert could be the key.	Further investigation required into sewer hydraulic capacity with UU and Highways.	LLFA, UU	tbc	P1, P2, P4, P5
	AoR606 - Longway	SD216689	Very flat, hydraulic capacity of combined system, also high water table. Short term flooding and to road only not property.	Watching brief.	LLFA	Ongoing	P2, P5

Barrow (PVA01)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR609 - Flass Lane	SD218697	No recent reports of localised flooding but most likely sewer capacity / sewer flooding had caused backing up onto road. Appears that mapping does not account for positive surface water drainage.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR623 - Friars Lane	SD215695	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Part of CSR3 programme to consider SuDS and local infrastructure improvements.	LLFA	2027-29	All
Barrow (PVA01)	AoR610 - West Avenue	SD206701	Historic flooding to the south side of West Avenue from sewer hydraulic inadequacy. UU have carried out an improvement to increase capacity. Highway improvements and flood gate barriers fitted. No recent reports of road flooding, but flooding to the garden of house on the north side reported more recently.	Investigation into surface water from the north.	LLFA, UU	tbc	P1, P2, P4, P5
	AoR619 - Hindpool Road	SD192695	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P1, P2, P4, P5
	AoR620 - North Road	SD189689	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5

Barrow (PVA01)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR622 - Holebeck Road	SD222695	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
Barrow (PVA01)	AoR601 - Black Butts Lane	SD180681	Regular flooding of Black Butts Lane due to sewer hydraulic inadequacy.	Further investigation with UU and Highways to see if there is a local improvement. Ultimate solution may revolve around Walney Channel rising main study.	LLFA, UU	tbc	P1, P2, P4, P5
	AoR624 - Ewan Close	SD211701	Surface water flooding of up to 57 properties due to overland flow and sewer capacity.	Currently at options appraisal stage of the scheme. Project currently ongoing as part of the CSR2 programme.	LLFA	2021-22	P1, P2, P4, P5
	AoR627 - Mill Beck, Barrow in Furness	SD219727	Study/investigation.	Scheme to be developed.	EA	Ongoing	P1, P2
	AoR628 - Roa Island	SD232649	Flood defence replacement & improvement scheme.	Scheme to be developed.	BBC, EA	Ongoing	P1, P4

Barrow (PVA01)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Dalton-in-Furness (PVA01)	AoR613 - Market Street	SD229740	Widespread integrated flooding across town including fluvial flooding, surface water ponding and exceedance of combined drainage network.	Further investigation required.	LLFA, UU	tbc	P1, P2, P4, P5
	AoR614 - King Street	SD233743	Widespread integrated flooding across town including fluvial flooding from the Poaka Beck, surface water ponding and exceedance of combined drainage network.	Further investigation required.	LLFA	tbc	P1, P2, P4, P5
	AoR616 - Newton Road, Dalton	SD230715	Flooding to west side of road from 2012 localised storm. Water flooded from east of Newton Road to the west , contributed from tripped out pumping station. No flooding reports since.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR602 - Greystone Lane	SD232735	Road flooding from pond which has no natural outlet so is pumped to a UU combined system.	Needs further investigation to provide sustainable SW drainage route from development site to west of pond.	LLFA, UU	tbc	P1, P2, P4, P5

Barrow (PVA01)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Dalton-in-Furness (PVA01)	AoR626 - Goose Green	SD226738	Extensive flooding across town centre and Newton Road in 2012. Goose Green is at risk of flooding from Hagg Ghyll and Poaka Beck. Property flooding in cul-de-sacs off Hollygate Road from surface water.	Some improvements have been made. Culvert cleansing complete and CCTV survey carried out. Improvements ongoing. Flood Investigation Report delivered to the community in October 2014 by the LLFA. MSfWG working to identify works to reduce flood risk. Works will be subject to funding availability.	LLFA, BBC, EA, Highways, UU	Ongoing	P1, P2, P4, P5
Walney Island (PVA01)	AoR617 - Amphitrite Street	SD178676	Originally flagged during the SWMP Strategic Assessment. No previous flooding in this area, therefore action not prioritised for delivery in this SWMP cycle based on lower predicted risk.	Watching brief.	LLFA	Ongoing	P2, P5
	AoR625 - Walney South	SD179684	Problem occurs during heavy rainfall. Gullies unable to cope with flood waters between Falmouth Street and Bristol Street resulting in the flooding of 4 properties.	UU have been undertaking studies in this area.	LLFA, BBC, UU	Ongoing	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR5701 - A5087 Newbiggin Protection	SD269692	Coastal protection to lengths of failed sea wall on the A5087.	Design and costing of a preferred solution completed. Sources of funding investigated and consenting requirement impact on construction programme analysed.	CCC	2023-24	P1, P2, P4, P5
	AoR3701 - Silloth Groyne Replacement	NY110540	Investigation of options for protection to promenade and the viability of continued use of groyne system.	Initial assessment completed. Ongoing work progressing options as part of the CSR2 coastal programme. Coastal defence options unlikely to be viable without consideration of flood risk from low lying areas adjacent to Morecambe Bay.	CCC	2020-22	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR3702 - Solway Firth Erosion Study	NY074458	Investigating erosion risk to infrastructure and habitats. Understanding regional impacts of potential interventions on the Allerdale coast.	Ongoing work progressing options as part of the CSR2 coastal programme. Development of 1D and 2D coastal processes model for the Solway Firth. Providing baseline information to inform development of coastal projects on the Allerdale Coast and the future of the B5300.	CCC	2021-23	P1, P2, P4, P5
	AoR4702 - Seascale Coastal Erosion Protection	NY036009	Study to investigate extent of and options for coastal protection along Seascale frontage.	Initial assessment completed. Project deferred. Requires partnership funding to move forward.	CBC	2022-25	P1, P2, P4, P5
	AoR4703 - St Bees Coastal Erosion Protection	NX960117	Study to investigate options for coastal protection across the St. Bees frontage.	Initial assessment shows a preferred option is viable. Grant-in-Aid funding application made to progress to next stage: Options Appraisal.	CBC	2022-24	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
	AoR5702 - Morecambe Bay Erosion Study	SD350700	Investigating erosion risk to infrastructure and habitats. Informing the development of the Compensatory Habitat Plan for the Cumbria Coastal Strategy.	5 coastal sites in Morecambe Bay assessed for Compensatory Habitat potential; 2 are viable and will be taken forward.	CCC	2020-23	P1, P2, P4, P5
Coastal (PVA20)	AoR5703 - South Ulverston Integrated Flood Risk Management Scheme	SD303779	Surface water, river and coastal flood risk studies. Environment Agency project.	Initial assessment ongoing. Complex project with further modelling to be undertaken.	EA	2020-24	P1, P2, P4, P5
	AoR4701 - Millom & Haverigg Flood Alleviation	SD175802	Reducing coastal flooding risk as well as sewer and surface water flooding.	Business case being developed for multi-million pound partnership project with United Utilities.	CCC	2021-23	P1, P2, P4, P5
	AoR3703 - Harrington North Shore Coastal Erosion Protection	NX988257	Protection to coastal path, former landfill site and railway.	Initial assessment completed. Preferred option to be tested in the Options Appraisal stage. Partnership working with Network Rail.	CCC	2021-25	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR4704 - Whitehaven Harbour Flood Defence Capital Replacement Works	NX970184	Repairs and refurbishment to harbour lock gates.	Refurbishment completed March 2022. cathodic protection to structure to be undertaken late 2022.	CBC	2020-22	P1, P2, P4, P5
	AoR6701 - South Walney Landfill Site Protection	SD197640	Coastal protection to former landfill site.	Cumbria waste management project to reduce risk of marine pollution from closed landfill site. Construction of rock revetment Summer 2023.	CCC	2021-23	P1, P2, P4, P5
	AoR3704 - Workington Former Steel Works Site Coastal Erosion Scheme	NX985272	Coastal protection to industrial slag heaps and development site.	Initial assessment progressing to investigate coastal protection options to reduce marine pollution from former industrial slag heaps. This will need to integrate with protection proposals from developer of the former steelworks site.	CCC	2022-26	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR6702 - Roa Island	SD232649	Implement the recommendations of the Roa Island Shorelink Study.	Examination of the hydrological impacts of the Roa Island and Foulney Island causeways on the salt marsh protection to Rampside. Shared project with the North West & North Wales Ecological Coastal Buffer Strips (EcoCoBS) programme.	BBC	2021-24	P1, P2, P4, P5
	AoR6703 - West Shore Park, Walney	SD170701	Develop a managed realignment strategy in readiness for when the current temporary defences are due to be removed.	Working with caravan park owners. Shared project with the North West & North Wales Ecological Coastal Buffer Strips (EcoCoBS) programme.	BBC	2025-27	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR3705 - Oldside Landfill Workington	NX994304	Coastal protection to former landfill site and potential development land by the Port of Workington.	Initial assessment progressing in partnership with the Port of Workington to investigate coastal protection options to reduce marine pollution from former industrial coastal sites and provide protection to development land.	CCC	2022-24	P1, P2, P4, P5
	AoR3706 - Dubmill Point Coastal Erosion	NY076454	Investigate impacts of adaptation options for B5300.	A coastal processes study has been undertaken for the Allerdale coast which will inform environmental implications of retaining or re-aligning the B5300 at Dubmill Point. Subsequent social and economic studies will also be required if the alignment of the road is to moved inland.	CCC	2022-24	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR3707 - Allonby to Seacroft Farm Erosion Protection	NY080441	Investigate protection to wastewater and highway infrastructure.	A coastal processes study has been undertaken for the Allerdale coast which will inform environmental implications of retaining or re-aligning the B5300. Subsequent social and economic studies will also be required if the alignment of the road is to moved inland.	CCC	2023-26	P1, P2, P4, P5
	AoR3708 - Siddick to Risehow (Flimby)	NY021340	Coastal protection to rail infrastructure. Watercourse outfall/beach management.	Studies will be commenced to develop options for improving protection to the railway and securing the performance of the waterfall outfalls on this frontage.	CCC	2027-30	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR3709 - Siddick to Risehow (Siddick)	NY003319	Coastal protection to Wastewater infrastructure.	Studies will be commenced to develop options for improving protection to the railway and wastewater infrastructure.	CCC	2027-30	P1, P2, P4, P5
	AoR3710 - Siddick to Risehow (Siddick)	NY008324	Coastal protection to windfarm infrastructure.	Studies will be commenced to develop options for improving protection to the railway and windfarm infrastructure.	CCC	2027-30	P1, P2, P4, P5
	AoR3711 - Bowness on Solway Erosion Reduction	NY222627	Investigate options to protect private properties.	Working with the community to investigate options for a collective response to the need for coastal protection.	CCC	2024-27	P1, P2, P4, P5
	AoR4705 - Parton Combined Flood and Coastal Erosion Risk Study	NX978206	Tidal, fluvial & pluvial flood risk investigation.	Studies will be undertaken to understand the risk of coastal flooding via rail subways and from surface water runoff from high ground above the village.	CBC	2023-29	P1, P2, P4, P5

Coastal (PVA20)							
Action No	Area of Risk	Grid Reference	Issue	Actions and Progress	Lead Organisation	Timescale	Policies Served
Coastal (PVA20)	AoR4706 - Stubb Place and Eskmeals Coastal Erosion Protection	SD080908	Short-term protection to highway access to MoD site whilst long-term solution is investigated.	Investigate the viability of temporary defence options to Stubb Place road to allow for future highway realignment and coastal adaptation.	CBC	2023-25	P1, P2, P4, P5
	AoR3712 - Anthorn to Cardurnock Coastal Erosion	NY180574	Green Estuary stabilization techniques to be investigated.	Studies will be undertaken to investigate ecological solutions to highway erosion and flood protection.	CCC	2023-25	P1, P2, P4, P5
	AoR4707 - Whitehaven Rock Armour Capital Maintenance	NX972188	Reinstatement of rock armour protection.	Appraisal of viable options for reinstatement/improvement of existing coastal defence.	CBC	2025-27	P1, P2, P4, P5

The Cumbria Coastal Action plan is currently on the Cumbria County Council website and can be viewed [here](#).

Table D.5. Cumbria LLFA schemes on the Environment Agency Medium Term Plan, March 2022

Project Name	GiA 2021/22 (£k)	GiA 2022/23 (£k)	GiA 2023/24 (£k)	GiA 2024/25 (£k)	GiA 2025/26 (£k)	GiA 2026/27 (£k)	GiA Total (£k)
Carlisle Appraisal Package Flimby	932	-	-	-	-	-	932
North Road, Holme Village Flood Alleviation	-	-	-	-	-	-	-
Millom and Haverigg Flood Alleviation	163	1,500	-	-	6,500	-	8,163
Colthouse, Hawkshead	-	-	-	-	-	-	-
Shap Beck Flood Alleviation Scheme	100	310	-	-	-	-	410
Kirkby Stephen Combined Flood Risk	200	150	-	-	-	-	350
Harrington North Shore Coastal Erosion Protection	30	185	200	-	-	-	415
Cumbria Quick Win Projects	-	-	-	-	-	-	-
Greystoke Surface Water Flood Alleviation	90	-	-	-	-	-	90
Cumbria Small Package of Measures 2021-22	110	-	-	-	-	-	110
Lindale Road Grange over Sands	250	-	-	-	-	-	250
Aspatria West End Surface Water Alleviation	75	-	-	-	-	-	75
Norbeck Park, Cleator Moor	50	403	-	-	-	-	453
Orchard Place, Cleator Moor	20	325	-	-	-	-	345
Threlkeld Village	132	-	-	-	-	-	132
Rydal Surface Water Alleviation	38	-	-	-	-	-	38
Lowther Park, Kendal Surface Water Scheme	80	70	-	-	-	-	150
Newbiggin A5087 Coast Road Coastal Erosion	500	507	-	-	-	-	1,007
Ewan Close, Barrow in Furness	50	370	-	-	-	-	420
Ravenglass Cumbria Surface Water	30	165	-	-	-	-	195

Project Name	GiA 2021/22 (£k)	GiA 2022/23 (£k)	GiA 2023/24 (£k)	GiA 2024/25 (£k)	GiA 2025/26 (£k)	GiA 2026/27 (£k)	GiA Total (£k)
Beetham Surface Water Flood Alleviation	30	75	-	-	-	-	105
Highgate Kendal Surface Water Scheme	-	200	175	-	-	-	375
Cumbria Small Package of Measures 2022-23	-	120	-	-	-	-	120
Marsh Garth Kirkby in Furness Flood Alleviation	-	74	-	-	-	-	74
Guldrey Lane, Sedbergh	-	53	-	-	-	-	53
Borland Avenue, Carlisle	-	20	-	201	-	-	221
Greenmoor Road, Egremont	-	18	130	-	-	-	148
Greenbank, Ambleside Surface Water Flooding	-	15	-	43	-	-	58
The Tannery, Burton in Kendal Surface Water Scheme	-	10	-	42	12	-	64
Kirkland Road, Ennerdale Bridge	-	10	-	78	-	-	88
Blencarn Park, Rockcliffe Surface Water Scheme	-	208	-	-	-	-	208
Cumbria Small Package of Measures 2023-24	-	-	-	120	-	-	120
Wigton Road, Carlisle Surface Water Scheme	-	-	-	24	88	-	112
Tebay Surface Water Alleviation	-	-	-	110	-	-	110
Kents Bank Road, Grange over Sands	-	-	-	15	53	-	68
Stanhope Road, Carlisle	-	-	100	390	-	-	490
Rinkfield, Kendal Surface Water Scheme	-	-	10	45	-	-	55
Parton Combined Flood Risk	-	-	100	483	-	-	583
Anthorn to Cardurnock Coastal Erosion	-	-	20	180	20	-	220
Harraby Surface Water Investigation	-	-	-	30	390	-	420
River Annas, Bootle, Cumbria	-	-	-	10	78	-	88
Petteril Terrace, Plumpton	-	-	-	60	-	-	60
Duke Street, Whitehaven	-	-	-	-	50	240	290

Project Name	GiA 2021/22 (£k)	GiA 2022/23 (£k)	GiA 2023/24 (£k)	GiA 2024/25 (£k)	GiA 2025/26 (£k)	GiA 2026/27 (£k)	GiA Total (£k)
Glassonby Surface Water Scheme	-	-	-	-	34	-	34
Castle Carrock Surface Water Scheme	-	-	-	-	39	-	39
Craig Walk Culvert, Bowness-on-Windermere	-	-	-	50	117	-	167
Grasslot Street, Maryport	-	-	-	-	-	60	60
Vicarage Drive Culvert, Kendal	-	-	-	-	-	280	280
Main Street, Kirkby Lonsdale	-	-	-	-	-	125	125
St Kentigerns Close, Keswick	-	-	-	-	-	166	166
Biggins Road, Kirkby Lonsdale	-	-	-	-	-	17	17
Cumbria Community Flood Resilience Innovation Programme	228	1,700	1,410	1,397	1,167	759	6,661
Totals	3,108	6,488	2,145	3,278	8,548	1,647	25,214



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