



Severn River Basin District Flood Risk Management Plan 2015-2021

Appendices

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Contents

The layout of this document	4
Annex 1 : Measures Tables	5
Annex 2. Sources of objectives and measures for the Severn FRMP	128
Annex 3. CFMP and SMP policies.....	129
Annex 4. Surface water property counts.....	131

The layout of this document

Flood Risk Management Plans have been divided into four sections to help readers identify and access information relevant to them. These are the appendices. The plan has been divided into four parts:

Name	Audience
Summary Document	For those who want a high level overview of the plan
Part A: Background and river basin district wide information	For those who need some legislative background and river basin district wide, high level information
Part B: Catchment Summaries	For those who want the detail of the sub-areas and flooding statistics. This section includes the catchments based on Water Framework Directive (WFD) management catchments, Flood Risk Areas (identified through the Preliminary Flood Risk Assessment) and other strategic areas across the RBD.
Part C: Appendices	For those who want to see the detailed measures set out for individual communities in England

The measures that relate to Wales only are found in the Welsh Strategic Area. The measures tables for all Welsh catchments are reported in Part B and not in the Part C: Appendices, as the Welsh measures relate to the highest risk communities by catchment. The Welsh measures are continually updated and the measures in this plan are indicative although correct at the time of publication. The RBD-wide measures that affect Welsh Catchments are found in the Appendices.

The measures that relate to the River Basin District, the English Strategic Area and English catchments are contained in the appendices.

The other parts of the flood risk management plan are located on [gov.uk](https://www.gov.uk/government/publications/severn-river-basin-district-flood-risk-management-plan) (<https://www.gov.uk/government/publications/severn-river-basin-district-flood-risk-management-plan>)

Annex 1: Measures Tables

Catchment / Flood Risk Area	Page
Severn River Basin District level measures	6
English Severn level measures	11
Bristol Avon and North Somerset Streams catchment and Bristol Flood Risk Area	12
Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area	29
English Severn Uplands catchment	46
Shropshire Middle Severn catchment	48
Worcestershire Middle Severn catchment	50
Teme catchment	62
Warwickshire Avon catchment	65
Severn Vale catchment	87
English Wye catchment	101
Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only	104

Measures in the Severn River Basin District

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3259	Severn River Basin District	Provide advice to local resilience fora	Providing advice and information to Local Resilience Fora to enable them to reduce the impact of flooding.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M42 - Emergency event response planning / contingency planning	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3262	Severn River Basin District	Provide advice to local communities	Providing advice and information to local communities at to enable them to reduce the impact of flooding. Increase awareness of flood risk and registration to Floodline through all our communications with the public.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M43 - Public awareness and preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3265	Severn River Basin District	Learn from Flood Events	We will continue to improve and develop our services based on lessons identified following flood event and feedback from communities and partners	N	N	Y	N	N	N	N	N	N	Y	N	Y	M53 - Other recovery and review	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3268	Severn River Basin District	Modelling & Hydrology	Undertake mapping and modelling to ensure our flood risk information remains up to date and fit for purpose. This will support the development of our capital programme for new assets, refurbishment work to existing assets, flood forecasting and flood incident management work, planning advice to local authorities and general advice to the public.	Y	N	N	N	N	N	N	N	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3274	Severn River Basin District	Flood Forecasting, warning & Incident Management	Undertake work to maintain and improve our flood forecasting, flood warning and flood incident management services. Focus on areas for improvement as highlighted by recent flooding events and routine exercises.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M41 - Flood forecasting and warning	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP

Measures in the Severn River Basin District

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3286	Severn River Basin District	Review System Asset Management Plans	Review System Asset Management Plans regularly with regard to maintenance, funding requirements and asset condition related works across each catchment. Utilise data from SAMPS, updated surveys & modelling to develop a more strategic, risk based approach to routine management & maintenance of the catchments.	Y	N	N	N	N	N	N	N	N	N	Y	N	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3287	Severn River Basin District	Work with others to avoid inappropriate development	Work closely with local planning authorities, developers, businesses and infrastructure operators to avoid inappropriate development through the planning process. Where development must occur in medium or high flood risk areas, ensure it is sustainable, does not increase flood risk and takes account of the impacts of climate change	N	N	Y	N	N	N	N	N	N	Y	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3298	Severn River Basin District	Flood Defence Consents	Ensure works in, over and next to main rivers do not increase flood risk or cause pollution through effective consenting. Use the consenting process to identify opportunities to improve the water environment.	Y	N	N	N	N	N	N	N	N	Y	Y	N	M21 - Avoidance	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3301	Severn River Basin District	Support implementation of Sustainable Drainage Systems	Ensure no increase in run-off from new developments through planning advice. Promote the implementation of Sustainable Drainage Systems (SuDS) in new developments to gain environmental, water quality, social and flood risk benefits.	N	N	Y	N	N	N	N	N	N	Y	Y	Y	M21 - Avoidance	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3307	Severn River Basin District	Increase awareness of riparian responsibilities	Increase awareness and encourage landowners to fulfil their riparian landowner responsibilities	Y	N	N	N	N	N	N	N	N	Y	Y	N	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3309	Severn River Basin District	Encourage catchment sensitive farming	Work with landowners, local and national Government, to encourage best farming practices to reduce rapid surface water run-off and soil erosion. For example, reduction of surface ponding, cropping techniques and soil management plans. Contribute to research and development to identify best practice for reducing runoff through land use change.	N	N	Y	N	N	N	N	N	N	N	Y	Y	M31 - Natural flood management / runoff and catchment management	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP

Measures in the Severn River Basin District

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3310	Severn River Basin District	Ensure appropriate floodplain compensation	Ensure appropriate floodplain compensation in undefended fluvial floodplains to mitigate development, through the planning process.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3311	Severn River Basin District	Promote flood resilience and flood proofing	Work with local authorities, home owners, businesses, developers and farmers to promote flood resilience and flood proofing and consider the possibility of property level protection measures.	N	N	Y	N	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3312	Severn River Basin District	Work collaboratively with partners	Raise awareness with key partners, landowners and land managers in their roles in flood risk management. Work collaboratively with local authorities, emergency services and other key partners to find innovative approaches to managing flood risk and explore opportunities for joint outcomes.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP
ACT5814	Severn River Basin District	Identify opportunities for floodplain restoration	Work with Natural England, Natural Resources Wales and other partners and landowners, to identify opportunities for floodplain and river restoration (in line with the River Basin Management Plan) including measures which increase storage in the upper catchment through detention basins/wetlands/attenuation, increase floodplain connectivity, enhance channel morphology and habitat diversity and encourage activities that may have potential to reduce run-off rates to downstream areas, whilst contributing wider benefits (biodiversity, soil conservation and water quality improvements).	Y	N	N	N	N	N	N	N	N	Y	Y	M31 - Natural flood management / runoff and catchment management	2039 +	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT5899	Severn River Basin District	Ensure a robust revenue maintenance programme exists	Ensure a robust, risk based, revenue maintenance programme exists that prioritises flood risk management works across each catchment, which is reflected in the maintenance bid within relevant System Asset Management Plans to include, where possible, opportunities for proposed maintenance works to naturalise watercourses and create habitat	Y	N	N	N	N	N	N	N	N	Y	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP

Measures in the Severn River Basin District

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
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	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
			through possible external/partnership funding. Engage key stakeholders on maintenance programme																		
ACT5900	Severn River Basin District	Advise how new development can be more resilient to flooding	Help reduce the damage floods can do by advising local planning authorities, developers, businesses and infrastructure operators on how new development can be designed to be more resilient to flooding.	Y	N	N	N	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT5901	Severn River Basin District	All high risk reservoirs are regulated under the Reservoirs Act 1975	All 'high-risk' reservoirs are regulated in accordance with the Reservoirs Act 1975 this is already monitored through business measures.	N	N	N	N	N	Y	N	N	N	Y	N	Y	M32 - Water Flow regulation	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP
ACT5902	Severn River Basin District	Deliver emergency works	Secure funding and deliver emergency works where needed for our assets	Y	N	N	N	N	N	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT5903	Severn River Basin District	Provide flood incident response service	Provide a flood incident response service 24 hours a day, 7 days a week, 365 days a year including operational response activities and providing information.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M41 - Flood forecasting and warning	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT5904	Severn River Basin District	EA/NRW high risk reservoirs have on site reservoir plans	All Environment Agency/Natural Resources Wales 'high risk' reservoirs have on-site reservoir plans in place.	N	N	N	N	N	Y	N	N	N	Y	N	Y	M42 - Emergency event response planning / contingency planning	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP

Measures in the Severn River Basin District

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT5905	Severn River Basin District	Work closely with NRW and EA	NRW and EA to work closely and to consider the benefit or detriment to the whole river basin in all decision making and activity.	Y	N	N	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	
ACT6930	Severn River Basin District	Incorporate Climate Change allowances into flood risk management works	Impacts from a changing climate will be considered in plans for location-specific works to reduce flood risk from all sources. Additional provision will be made during original design and construction, or may be deferred until later but allowance made in the design of structures (such as larger wall foundation) to facilitate this. Revised guidance for Risk Management Authorities is scheduled for publication early in 2016 and will recommend use of scenarios and allowances by River Basin District which are contained in the recently released 'Planning Decisions and Climate Change' guidance for Local Authority Planners	N	N	N	N	N	Y	Y	Y	Y	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	
ACT6931	Severn River Basin District	Identify where working with natural processes can help improve resilience to climate change	Produce working with natural processes opportunity maps to show where these measures could help: - reduce flood and coastal erosion risk - catchments both adapt and become more resilient to the impacts of Climate Change - improve water quality and - improve the environment. Woodland planting opportunity maps have already been produced, these identify where planting trees could reduce flood risk and improve water quality. Between 2015-2017, these maps will be expanded to cover a wider range of working with natural processes measures Planting trees could have an additional role in mitigating against increasing CO2 emissions they also can help shade watercourses helping fish species adapt to increasing water temperatures.	N	N	Y	N	Y	N	N	N	N	Y	Y	Y	M31 - Natural flood management / runoff and catchment management	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	

Measures in the English Severn

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT3212	Severn England	Replace/refurbish flood risk management assets	Undertake a maintenance programme to replace/refurbish flood risk management assets, including pumping stations and outfalls, when needed to reduce flood risk. Public funding contribution subject to meeting technical, environmental and economic criteria and the availability of funding. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	
ACT5898	Severn England	Investigate the benefits of planting wet woodlands	Investigate the benefits of planting trees/woodland to reduce flood risk to take forward the approach recommended by the 'Woodlands for Water' project.	N	N	Y	N	N	N	N	N	N	Y	Y	N	M31 - Natural flood management / runoff and catchment management	2015 - 2021	Low	Environment Agency	Statutory FRMP	FRMP	
ACT7133	English Severn	Partnership working across RMA's including water companies	Partnership working across all RMA's, including water companies, will encourage the identification of opportunities to deliver measures in support of flood protection, prevention and resilience, including land and catchment management initiatives.	N	N	Y	N	N	N	Y	N	Y	Y	Y	Y	M61 - Other	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	
ACT7134	English Severn	RMA's, including water companies, deliver joined up advice on flooding	RMA's, including water companies, to work together to deliver joined up advice and information about flooding (including sewer flooding) to support community engagement and awareness measures.	N	N	Y	N	N	N	Y	N	Y	Y	Y	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	

Measures in the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT1902	Southern part of the general South Gloucestershire Council Area	BA/SG 5.1.1/Flood records from Parish Councils	Target Parish Councils and large businesses for any locally held information and to engage about local protection measures	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary Authority	Statutory FRMP	Local FRM Strategy
ACT1903	General South Gloucestershire Council Area	BA/SG 5.2.1/ Investigate climate change impacts	Investigate how climate change is predicted to affect flood risk to inform long-term planning, mitigation and decision-making at the catchment level	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1904	General South Gloucestershire Council Area	BA/SG 5.2.2/Climate change risks and impacts	Identify where the main risks from climate change will impact council services and flood risk management and develop action plan to address specific local issues	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1905	General South Gloucestershire Council Area	BA/SG 5.3.1/Maintain flood incident database	Establish and maintain a centralised database or system for recording historic and reported flooding incidents	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1906	General South Gloucestershire Council Area	BA/SG 5.3.2/Collate historic flood incident records	Collate and incorporate historical information and customer call centre records into the SGC Flood Database	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary Authority	Statutory FRMP	Local FRM Strategy
ACT1907	General South Gloucestershire Council Area	BA/SG 5.3.3/Develop pro-forma for call centre	Develop a short pro-forma for Call Centre staff to record correct information when taking calls about flooding incidents from the public. Specific incidents followed up after the event with detailed pro-forma.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

Measures in the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT1908	General South Gloucestershire Council Area	BA/SG 5.3.4/Review flood investigation criteria	Review flood investigation criteria for 'significant' flooding incidents in accordance with agreed protocol on a yearly basis or following a significant flooding event	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M51 - Individual and societal recovery, clean up and restoration activities	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1909	General South Gloucestershire Council Area	BA/SG 5.3.5/Develop flood reporting technology	Develop new technology such as mobile apps to record and report flooding information, and use of Extended Floodline Service.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Low	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1910	General South Gloucestershire Council Area	BA/SG 5.4.1/Review flood risk document programme	Review the programme for updating South Gloucestershire flood risk documents and align these with updates to Risk Management Authority documents, e.g. CFMP and RBMP to ensure catchment approach	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1911	General South Gloucestershire Council Area	BA/SG 5.4.2/Review SG PFRA	Update South Gloucestershire Preliminary Flood Risk Assessment.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1912	General South Gloucestershire Council Area	BA/SG 5.4.3/Review SG SFRA	Update South Gloucestershire Strategic Flood Risk Assessment.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1913	General South Gloucestershire Council Area	BA/SG 5.4.4/Review SG LFRMS	Review South Gloucestershire Local Flood Risk Management Strategy	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1915	General South Gloucestershire Council Area	BA/SG 1.1.1/Review asset inspection and maintenance	Review and formalise inspection and maintenance of drainage infrastructure including gullies and trash	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

Measures in the Bristol Flood Risk Area

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
			screens																		
ACT1916	General South Gloucestershire Council Area	BA/SG 1.1.2/Update inspection reporting procedure	Transfer paper-based inspection reporting procedure to electronic format	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Low	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1917	General South Gloucestershire Council Area	BA/SG 1.1.3/Map council drainage assets	Map locations and conditions of Council drainage assets, as part of South Gloucestershire Asset Register	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1918	General South Gloucestershire Council Area	BA/SG 1.1.4/Prioritise vulnerable infrastructure	Use the South Gloucestershire Asset Register to identify and establish priorities for vulnerable infrastructure taking into account climate projections and prioritise maintenance regimes based on available funding	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1919	General South Gloucestershire Council Area	BA/SG 1.1.5/Review RMA maintenance overlaps	Review maintenance plans for different risk management authority and council assets and identify where responsibilities and maintenance targets overlap	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1920	General South Gloucestershire Council Area	BA/SG 1.2.1/Review SGC drainage policy	Review existing and emerging Council policies with regards to drainage infrastructure for new development	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

Measures in the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT1921	General South Gloucestershire Council Area	BA/SG 1.3.1/Review emergency response strategy	Review the emergency response strategy and procedures for dealing with flooding alerts / incidents and response to residents, businesses, and other agencies following each significant flooding event.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M51 - Individual and societal recovery, clean up and restoration activities	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1922	General South Gloucestershire Council Area	BA/SG 1.3.2/Review SG Multi-Agency Flood Plan	Review and share outcomes from the South Gloucestershire Multi-Agency Flood Plan	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1923	General South Gloucestershire Council Area	BA/SG 1.3.3/Review SG Severe Weather Plan	Review and share outcomes from the South Gloucestershire Severe Weather Plan	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1924	Bristol Frome river catchment	BA/SG 1.4.1/Work with WoEP on Frome catchment	Work with partners to assess the impacts of climate change on the Frome catchment both in South Gloucestershire and Bristol, with identification and assessment of strategic options for maintaining the standard of protection as a minimum	N	N	Y	N	N	N	N	N	N	N	N	Y	M32 - Water Flow regulation	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1925	River Avon corridor, Bristol to Bath	BA/SG 1.4.2/Work with BaNES on River Avon Corridor	Work with Environment Agency and Bath and North East Somerset to review opportunities for measures and funding for River Avon Corridor (Bristol to Bath)	N	N	Y	N	N	N	N	N	N	N	N	Y	M32 - Water Flow regulation	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1926	General South Gloucestershire Council Area	BA/SG 1.4.3/Identify FRM Schemes with RMAs	Liaise with Risk Management Authorities to produce a list of on-going and potential flood risk management schemes in South Gloucestershire and	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

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															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
			funding provisions / requirements for these																		
ACT1927	General South Gloucestershire Council Area	BA/SG 1.5.1/Review funding sources for FRM	Develop list of all potential funding sources for flood or water management, with application deadlines, and review quarterly	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary Authority	Statutory FRMP	Local FRM Strategy
ACT1928	General South Gloucestershire Council Area	BA/SG 1.5.2/Review funding for LFRM post Mar 2015	Review funding available to undertake Local Flood Risk Management activities post March-2015.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1929	General South Gloucestershire Council Area	BA/SG 2.1.1/Improve flood risk info on SGC website	Improve available information and sign posting on the council website about all sources of flood risk in South Gloucestershire and about how residents and businesses can help themselves.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1930	General South Gloucestershire Council Area	BA/SG 2.1.2/Distribute SGC emergency planning info	Distribute SGC emergency planning leaflets to identified communities and businesses at highest risk of flooding in South Gloucestershire	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1932	General South Gloucestershire Council Area	BA/SG 2.2.2/Encourage use of FRM online tools	Encourage residents and businesses to use online tools available from the Environment Agency and National Flood Forum to produce risk assessments, action plans and continuity plans	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

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ACT1933	General South Gloucestershire Council Area	BA/SG 2.2.3/Work with schools on flood resilience	Work with schools to identify educational opportunities for resilience training or talks as part of the Climate Change, Sustainability and Emergency Planning Initiative	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1934	General South Gloucestershire Council Area	BA/SG 2.2.4/Develop initiatives on reducing risk	Develop initiatives to encourage businesses and householders to take action to reduce risk (e.g. depave)	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1935	General South Gloucestershire Council Area	BA/SG 2.2.5/Support Flood Plans or Groups	Support Parish Councils who want to set up local flood plans or groups	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M43 - Public awareness and preparedness	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1936	General South Gloucestershire Council Area	BA/SG 2.3.1/Identify ordinary w/c ownership	Where possible, identify ownership for ordinary watercourses and record in a centralised database	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1937	General South Gloucestershire Council Area	BA/SG 2.3.2/Riparian owner info on website 1	Improve information on the website about riparian responsibilities of ordinary watercourse maintenance	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1938	General South Gloucestershire Council Area	BA/SG 2.3.3/Contact landowners about FRM 1	Contact landowners outlining South Gloucestershire Council responsibilities as a Risk Management Authority and their rights and responsibilities as landowners	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1939	General South Gloucestershire Council Area	BA/SG 6.1.1/Hold training for Members on FRM 1	Hold a presentation or face to face training for Elected Members about flood risk and management of this in South Gloucestershire	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

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ACT1940	General South Gloucestershire Council Area	BA/SG 6.2.1/Identify FRM priorities and dev 1	Identify strategic flood risk management priorities and how future development can help deliver these	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1941	General South Gloucestershire Council Area	BA/SG 6.2.2/Form Internal Flood Group 1	Meet regularly with representatives from spatial planning, development management, asset management and maintenance, and strategic environment and climate change	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1942	General South Gloucestershire Council Area	BA/SG 6.3.1/Determine SG SAB procedures 1	Determine South Gloucestershire Council's protocol for receiving, approving, adopting and maintaining SuDS	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1943	General South Gloucestershire Council Area	BA/SG 6.3.2/Up skill SGC officers on SAB reqs 1	Use available resources, e.g. Defra and Environment Agency e-learning modules, to up skill staff on SuDS	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1944	General South Gloucestershire Council Area	BA/SG 6.3.3/Identify resources to undertake SAB 1	Identify the resources required to undertake SuDS applications review and approval as a statutory consultee to the LPA	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1946	General South Gloucestershire Council Area	BA/SG 6.4.1/Produce SuDS Guidance Document 1	Produce a Developers SuDS Guidance Document specific to the local area, including guidelines on flood resilient buildings	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1947	General South Gloucestershire Council Area	BA/SG 6.4.2/Provide drainage reqs. On SGC website 1	Provide clear information on the Council website about council expectations on drainage	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

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ACT1948	General South Gloucestershire Council Area	BA/SG 6.4.3/Consider SuDS in new dev 1	Proactively consider SuDS in early discussions about development design	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1949	General South Gloucestershire Council Area	BA/SG 6.4.4/Ensure future 1	Ensure drainage infrastructure for new development is designed to accommodate levels of precipitation expected during its design life, including climate change	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1950	General South Gloucestershire Council Area	BA/SG 3.1.1/Area of combined flood risk 1	Use available datasets to identify areas where combined flood risk, e.g. surface water and sewer or river, could combine to exacerbate risk	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1951	General South Gloucestershire Council Area	BA/SG 3.1.2/Improve communication with HA and NR 1	Improve communication with Highway's England and Network Rail about joining up approach to flood management around major transport routes	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1952	General South Gloucestershire Council Area	BA/SG 3.2.1/Attend WoEP Flood Group Meetings 1	Continue to attend West of England Flood Risk Partnership meetings	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1953	General South Gloucestershire Council Area	BA/SG 3.2.2/Maintain communication with SWFMG 1	Maintain communication with South West Flood Managers Group about lessons learnt from flooding events and flood management initiatives	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1955	General South Gloucestershire Council Area	BA/SG 3.3.2/Agree data sharing with RMAs 1	Agree methods of sharing information and data amongst flood Risk Management Authorities	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

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ACT1956	General South Gloucestershire Council Area	BA/SG 3.3.3/Invite RMAs on to Steering Groups 1	Invite neighbouring LLFAs and Risk Management Authorities to sit on the Steering Group when updating flood risk documents	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1959	General South Gloucestershire Council Area	BA/SG 4.1.2/Identify overlapping SGC works plans 1	Maintain a list of projects or works being undertaken across council departments that have a flood risk management component, and identify any opportunities where works overlap and savings can be made, e.g. resurfacing of paths or roads	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1960	General South Gloucestershire Council Area	BA/SG 4.2.1/Educate SGC officers on SuDS 1	Educate council officers on SuDS and potential benefits as an alternative to traditional drainage	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1961	General South Gloucestershire Council Area	BA/SG 4.2.2/Costs of SuDS vs. non-SuDS 1	Understand costs of implementing SuDS over traditional drainage on the highway or public spaces	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy
ACT1962	General South Gloucestershire Council Area	BA/SG 4.2.3/Where FRM and other plans align 1	Liase with Risk Management Authorities to identify opportunities where flood risk works can be aligned with other non-flood risk policies or plans to deliver wider benefits	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	South Gloucestershire Unitary	Statutory FRMP	Local FRM Strategy

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															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT2035	Bristol - Central area	BA/BFRA/River Avon Strategic Defences 1	Investigation and hydraulic modelling assessment into the need, justification and outline business case of a strategic flood mitigation solution for central Bristol. Primary source of flood risk to be mitigate against is tidal flooding	N	N	Y	Y	N	N	N	N	N	Y	N	Y	M24 - Other prevention	2015 - 2021	Critical	City of Bristol Unitary Authority, Environment Agency , Local Enterprise Partnership , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2036	Bristol - Ashton area	BA/BFRA/Ashton Area Flood Risk Study 1	Investigation and assessment into the need, justification and outline design of a flood mitigation solution for the Ashton area. Numerous flood sources affect the area - fluvial, tidal, groundwater and surface water	N	Y	N	N	N	N	Y	N	Y	Y	N	Y	M23 - Reduction	2015 - 2021	High	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2038	Bristol - Citywide	BA/BFRA/Bristol Groundwater Assessment 1	Study to investigate likelihood of groundwater flooding across the city	N	N	N	N	N	N	Y	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	City of Bristol Unitary Authority, Environment Agency	Statutory FRMP	Local FRM Strategy
ACT2039	Bristol - Citywide	BA/BFRA/Flood Risk Asset Register 1	Establish and publish Flood Risk Asset Register	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 - Other prevention	Pre 2015	Critical	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2040	Bristol - Hengrove	BA/BFRA/Bamfield Flood Alleviation Scheme 1	Investigate opportunities for a flood alleviation scheme to reduce the risk of surface water flooding to Bamfield in south Bristol	N	N	N	N	N	N	Y	N	Y	Y	N	N	M34 - Surface water management	2015 - 2021	Moderate	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy

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ACT2041	Bristol - Henbury	BA/BFRA/Henbury Flood Alleviation Scheme 1	Investigate opportunities for a flood alleviation scheme to reduce the risk of surface water flooding to Henbury in north Bristol	N	N	Y	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	Moderate	City of Bristol Unitary Authority, Environment Agency , South Gloucestershire Council	Statutory FRMP	Local FRM Strategy
ACT2042	Bristol - Bedminster	BA/BFRA/Willway St Culvert Tide Flap Replacement 1	Replacement of existing tide flap to maintain the standard of protection to existing properties	N	N	Y	Y	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2043	Bristol - Southmead	BA/BFRA/Southmead Road Flood Alleviation Scheme 1	Flood alleviation scheme to reduce the risk of surface water flooding to a community in north Bristol	N	Y	N	N	N	N	Y	N	Y	Y	N	N	M34 - Surface water management	2015 - 2021	Very High	City of Bristol Unitary Authority Environment Agency , South Gloucestershire Council , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2044	Bristol City	BA/BFRA/Southmead Green Streets 1	Pilot SuDS scheme to reduce the risk of surface water flooding to a community in north Bristol, improve the streetscape and showcase SuDS in relation to new statutory planning consultee	N	N	Y	N	N	N	Y	N	Y	Y	Y	N	M34 - Surface water management	2015 - 2021	High	City of Bristol Unitary Authority, Wessex Water , Local community	Statutory FRMP	Local FRM Strategy
ACT2045	Bristol - Citywide	BA/BFRA/SAB Establishment 1	Establish the statutory consultee role for Bristol City Council as LLFA in accordance with the amended NPPF, in relation to enhanced SuDS requirements	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M24 - Other prevention	Pre 2015	Critical	City of Bristol Unitary Authority Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2046	Bristol City, Long Ashton	BA/BFRA/2014/LFRMS/LAshton/6.2.7.1 1	Assess the risk of flooding from the Long Ashton Brook, as the Brook is predicted to present a	N	Y	N	N	N	N	Y	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	North Somerset Unitary Authority	Statutory FRMP	Local FRM Strategy

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			significant flood risk to properties,																		
ACT2047	Bristol City, Long Ashton	BA/BFRA/2014/LFRMS/LAshton/6.2.7.2 1	Investigate the performance of the highway drainage network and enhance maintenance/undertake improvements where necessary	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	Moderate	North Somerset Unitary Authority	Statutory FRMP	Local FRM Strategy
ACT2048	Bristol City, Long Ashton	BA/BFRA/2014/LFRMS/LAshton/6.2.7.4 1	Work with the school to raise awareness of potential flood risk, identify feasible mitigation measures and ensure a flood emergency plan is in place	N	N	N	N	N	N	Y	N	N	Y	N	N	M43 - Public awareness and preparedness	Pre 2015	Moderate	North Somerset Unitary Authority	Statutory FRMP	Local FRM Strategy
ACT2052	Bristol - Citywide	BA/BFRA/Bristol SWMP 1	Continue to utilise and revise the SWMP to inform flood risk activities, respond to planning applications and emergency response. Includes the action to revise the vulnerability mapping results of the SWMP	N	N	Y	N	N	N	Y	N	Y	Y	N	N	M44 - Other preparedness	2015 - 2021	High	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2053	Bristol - Citywide	BA/BFRA/Identify Community Groups 1	Identify local groups and communities that we can work with to improve community engagement and commence projects, schemes and plans to achieve the actions of the LFRMS	N	N	Y	N	Y	N	Y	Y	Y	Y	N	N	M44 - Other preparedness	2015 - 2021	Moderate	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2054	Bristol - Citywide	BA/BFRA/Asset surveys 1	Undertake comprehensive surveys of flood risk assets, such as those completed in Southmead and Southville to populate the Asset Register and improve our	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy

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			proactive management and maintenance of flood risk assets																		
ACT2055	Bristol - Citywide	BA/BFRA/Install hydrometry monitors and gauges 1	Installation of hydrometry monitors and gauges to help improve understanding of catchment responses, emergency responses as well as inform our studies and mitigation schemes	N	N	Y	N	N	N	Y	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	City of Bristol Unitary Authority, Environment Agency	Statutory FRMP	Local FRM Strategy	
ACT2056	Bristol - Citywide	BA/BFRA/Procedure for recording flood events 1	Develop our procedure for recording flood events to improve historical records. This will assist with verification of study results, knowledge of catchment responses, proactive and more efficient flood risk management.	N	N	Y	N	N	N	Y	Y	N	N	Y	M53 - Other recovery and review	2015 - 2021	Moderate	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy	
ACT2057	Bristol - Citywide	BA/BFRA/maintenance of ordinary watercourses 1	To discharge our duties under the Flood and Water Management Act and Land Drainage Act, we will continue our maintenance regime of ordinary watercourses and associated structures. This will include ongoing management and improvement of associated contracts. This may include management on Main Rivers, where BCC are riparian owner	N	N	Y	N	N	N	N	N	N	Y	N	M24 - Other prevention	2015 - 2021	Critical	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy	

Measures in the Bristol Flood Risk Area

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT2058	Bristol - Citywide	BA/BFRA/Watercourse structural improvements 1	Identify and prioritise watercourse structural improvements to ensure proactive asset management and maintenance, as well as improved Health and Safety and access improvements	N	N	Y	N	N	N	Y	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2059	Bristol - Citywide	BA/BFRA/Implement minor land drainage works 1	Identify and undertake minor land drainage and flood mitigation schemes, in accordance with the risk-based approach advocated by the LFRMS	N	N	Y	N	N	N	Y	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2060	Bristol - Stockwood	BA/BFRA/Scotland Lane alleviation scheme 1	Deliver an appropriate scheme to reduce flood risk to Scotland Lane. Works to be led by the Highways Authority	N	N	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2061	Bristol - Citywide	BA/BFRA/Encourage SuDS on RMA schemes 1	For schemes led by the various RMAs in the Bristol area, we will identify opportunities for including SuDS measures to encourage wider benefits from the schemes. This includes a process of education of internal clients to recognise the benefit of SuDS so they become more widely accepted as part of scheme designs	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M34 - Surface water management	2015 - 2021	High	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2062	Bristol City, Floating Harbour	BA/BFRA/Floating Harbour asset management 1	Complete an asset management report for Floating Harbour assets, including those that have a flood risk function. Action to be completed by the Harbour Authority team in	N	N	N	Y	N	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Very High	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy

Measures in the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
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															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
			the LLFA. This will implement a more proactive asset management regime for the Harbour																		
ACT2063	Bristol City	BA/BFRA/Highway drainage maintenance 1	Develop a risk based and data-led approach to highway drainage maintenance.	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 - Other prevention	2015 - 2021	Very High	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2064	Bristol - Citywide	BA/BFRA/Watercourse Consents 1	Follow established procedures for consenting works to ordinary watercourses	N	Y	N	N	N	N	Y	N	N	N	Y	N	M24 - Other prevention	2015 - 2021	Critical	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2065	Bristol - Citywide	BA/BFRA/Programme of Community Engagement 1	Identify existing groups, networks and agencies. Produce a programme of engagement activities to enable communities to be more prepared and actively manage their own risk	N	N	Y	N	N	N	Y	Y	Y	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	High	City of Bristol Unitary Authority, Environment Agency	Statutory FRMP	Local FRM Strategy
ACT2066	Bristol City	BA/BFRA/Improved LLFA section of BCC website 1	Utilise a variety of communication tools to improve community flood awareness and resilience, including an updated BCC LLFA website	N	Y	N	N	N	N	Y	Y	Y	N	N	Y	M41 - Flood forecasting and warning	2015 - 2021	Moderate	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2067	Bristol - Citywide	BA/BFRA/Respond to planning applications 1	Follow and revise procedures for responding to development planning applications to ensure sustainable development	N	Y	N	N	N	N	N	Y	Y	N	N	Y	M21 - Avoidance	Pre 2015	High	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy

Measures in the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
ACT2068	Bristol - Citywide	BA/BFRA/Update the Bristol SFRA 1	Update the SFRA document to reflect recent study outputs in collaboration with other RMAs.	N	N	Y	N	N	N	Y	Y	Y	N	N	Y	M24 - Other prevention	2015 - 2021	High	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2069	Bristol - Citywide	BA/BFRA/WaSUD Best Practice Guide 1	Produce a best practice guide on enabling Water Sensitive Urban Design (WaSUD) for new development in Bristol. Will develop on the procedures established as part of the West of England SuDS Developer Guide and assist with discharging the statutory duty of encouraging sustainable development	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	City of Bristol Unitary Authority, Environment Agency , Wessex Water	Statutory FRMP	Local FRM Strategy
ACT2070	Bristol - Citywide	BA/BFRA/Involvement in CIL 1	Ensure that flood considerations are involved in the distribution of Community Infrastructure Levy to benefit at-risk communities	N	N	Y	N	N	N	Y	Y	Y	N	N	Y	M23 - Reduction	2015 - 2021	Moderate	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2071	Bristol - Citywide	BA/BFRA/Auditing planning applications 1	Ensure efficient and consistent approach to LLFA response to planning applications by establishing and undertaking internal audits of planning application procedures and responses	N	Y	N	N	N	N	Y	Y	Y	N	N	Y	M21 - Avoidance	2015 - 2021	Low	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2072	Bristol - Citywide	BA/BFRA/Provide flood warning advice 1	In line with the requirements of the Bristol City Council Flood Plan, the Flood Risk and Asset Management Team are to continue to provide advice	N	N	Y	Y	N	Y	Y	Y	Y	N	N	Y	M41 - Flood forecasting and warning	2015 - 2021	Critical	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy

Measures in the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
															Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner, plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
			and actions from flood and weather warnings to the wider authority and stakeholders																		
ACT2073	Bristol - Citywide	BA/BFRA/Section 19 Flood Investigations 1	Undertake formal Section 19 flood investigations as required	N	N	Y	Y	N	Y	Y	Y	Y	N	N	Y	M53 - Other recovery and review	2015 - 2021	Critical	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy
ACT2074	Bristol - Citywide	BA/BFRA/Attend EA community flood plan meetings 1	Attend flood plan meetings with the EA to improve community engagement and community action to help manage the risk of flooding	N	N	Y	N	N	N	Y	Y	Y	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	High	City of Bristol Unitary Authority, Environment Agency	Statutory FRMP	Local FRM Strategy
ACT2075	Bristol - Citywide	BA/BFRA/Formalise LLFA working group 1	Establish and utilise the LLFA working group to promote and co-ordinate flood response and preparedness across key teams within the authority	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	Y	M42 - Emergency event response planning / contingency planning	2015 - 2021	High	City of Bristol Unitary Authority,	Statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
																Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1654	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/Partnership	The active involvement of all Risk Management Authorities is crucial to the Local Strategy and its success so the County Council will continue to maintain key partnerships within the county and across the South West	N	Y	N	N	N	N	Y	Y	N	Y	N	N	M24 - Other prevention	2015 - 2021	Critical	Somerset County	Non statutory FRMP	Local FRM Strategy
ACT1655	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/Studies	Undertake local studies and assessments	N	Y	N	N	N	N	Y	Y	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy
ACT1656	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/PLP	Promote property protection measures as a tool in flood risk management	N	Y	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy
ACT1657	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/Flood Plans	Assist individuals and communities in flood risk areas to develop their own property protection schemes. This includes offering advice on establishing flood action groups and flood plans to ensure best use of the protection products	N	Y	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy
ACT1658	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/Awareness	The County Council and its partners will undertake focussed awareness raising programmes highlighting the actions communities can take to minimise the impacts of flooding	N	Y	N	N	N	N	Y	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
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				N	Y	N	N	N	N	Y	N	N	N	N	Y	Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1659	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/Riparian Responsibilities	Raise awareness of the responsibilities of riparian ownership	N	Y	N	N	N	N	Y	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy
/ACT1660	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/Resilience	Work with local communities who would like to establish local resilience flood stores in their communities	N	Y	N	N	N	N	Y	N	N	N	N	Y	M23 - Reduction	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy
ACT1661	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/SuDS	Produce local Sustainable Drainage guidance to complement the National Standards on how environmental, amenity and flooding solutions can be integrated	N	N	N	N	N	N	Y	N	N	N	Y	N	M34 - Surface water management	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy
ACT1662	Catchment wide, South and West Somerset Catchment	Somerset/LLFA/Catchment Based approach	Take a holistic approach to flood risk management through seeking opportunities for catchment management to give flood risk benefits	N	Y	N	N	N	N	Y	N	N	N	N	Y	M31 - Natural flood management / runoff and catchment management	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy
ACT1663	Upper Tone and Parrett Catchments, South and West Somerset Catchment	Somerset/LLFA/Catchment Management	Levels and Moors Action Plan Land Management - encourage reduced runoff from the upper catchment through land management and local storage schemes	N	N	Y	N	N	N	N	N	N	Y	Y	Y	M31 - Natural flood management / runoff and catchment management	2015 - 2021	Very High	Somerset County	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

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ACT1974	Wrington	BA/NS/2014/LFRMS/Wrington/6.2.1.1 1	Alleviate flooding from the watercourse At Wrington including upsizing of the watercourse at critical points.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	Pre 2015	Very High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1975	Wrington	BA/NS/2014/LFRMS/Wrington/6.2.1.2 1	Alleviate flooding from the watercourse including storage upstream of Wrington.	N	Y	N	N	N	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	Pre 2015	Very High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1976	Wrington	BA/NS/2014/LFRMS/Wrington/6.2.1.3 1	Surface Water study in the north of Wrington	N	N	N	N	N	N	Y	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1977	General North Somerset Council Area	BA/NS/2014/LFRMS/WsM/6.2.2.2 1	We will work with the infrastructure owners and public in Claverham to raise their awareness of potential flood risk.	N	Y	N	N	N	N	Y	N	N	N	N	Y	M34 - Surface water management	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
ACT1979	Nailsea	BA/NS/2014/LFRMS/Nailsea/6.2.3.1 1	Investigation is required to understand the current maintenance of highway gullies in Nailsea and whether an enhanced maintenance regime is required. The outputs from the investigation will be linked to the asset register plus to ensure that the maintenance regime is appropriately captured in our asset management system.	N	N	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1980	Nailsea	BA/NS/2014/LFRMS/Nailsea/6.2.3.2 1	Prepare a Surface Water Management Plan for Nailsea to enable us, and our flood risk management partners, to better understand the flooding	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1981	Nailsea	BA/NS/2014/LFRMS/Nailsea/6.2.3.3 1	Establish a survey of the route, connectivity and location of historic watercourses in Nailsea. Liaison with the Town Council and Wessex Water will be key in gathering data	N	N	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1987	Claverham	BA/NS/2014/LFRMS/Claverham/6.2.5.1 1	A Surface Water Management Plan would be the approach to enable us and our flood risk management partners to better understand the flooding mechanisms, and to identify feasible and cost-effective mitigation measures	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

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																Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1988	Claverham	BA/NS/2014/LFRMS/Claverham/6.2.5.2 1	NSC will work with these property owners to investigate whether property-level protection measures can be implemented.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M35 - Other protection	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1989	Claverham	BA/NS/2014/LFRMS/Claverham/6.2.5.3 1	NSC will work with the Weston-super-Mare infrastructure owners to raise their awareness of potential flood risk.	N	N	N	N	N	N	Y	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1990	Congresbury	BA/NS/2014/LFRMS/Congresbury/6.2.6.1 1	NSC flood risk management and highways teams will assess the current performance and maintenance of the drainage network and will enhance the network where needed. Partnership working with Wessex Water will be important.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1991	Congresbury	BA/NS/2014/LFRMS/Congresbury/6.2.6.2 1	NSC will work with the IDB and Wessex Water to ensure the rhyne network is adequately maintained to drain flood water	N	Y	N	N	N	N	Y	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

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																Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1992	Congresbury	BA/NS/2014/LFRMS/Congresbury/6.2.6.3and4 1	We will investigate the cause of flooding to properties on several roads before recommending mitigation measures	N	N	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1993	Congresbury	BA/NS/2014/LFRMS/Congresbury/6.2.6.5 1	"Undertake a programme in the area through the community resilience group to encourage road users to take additional precautions when driving through flood water to avoid causing flooding to properties. Continue to raise awareness through the community resilience teams about actions local residents should take before, during and after a flood to mitigate the impacts of flooding"	N	Y	N	N	N	N	Y	N	N	Y	N	N	M43 - Public awareness and preparedness	2021 - 2027	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1997	Backwell	BA/NS/2014/LFRMS/Backwell/6.2.8.1 and 2 1	Understand the cause of flooding investigate and the source of runoff in order to identify mitigation measures	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

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ACT1998	Backwell	BA/NS/2014/LFRMS/Backwell/6.2.8.4 1	We will work with the infrastructure owners to raise their awareness of potential flood risk.	N	N	N	N	N	N	Y	N	N	Y	N	N	M43 - Public awareness and preparedness	Pre 2015	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1999	Backwell	BA/NS/2014/LFRMS/Backwell/6.2.8.5 1	The flood risk management and highways teams will work together to identify the cause of flooding on the road network and the mitigation measures required.	N	N	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2021 - 2027	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2000	Backwell	BA/NS/2014/LFRMS/Backwell/6.2.8.6 1	There is significant flooding predicted to properties in the north of Backwell due to surface water runoff backing up against the railway embankment. This needs investigation to identify whether this risk could materialise because of the depth of flooding and number of properties potentially at risk	N	N	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2021 - 2027	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2001	Churchill	BA/NS/2014/LFRMS/Churchill/6.2.9.1 1	Uncertainty about the route of the watercourse in places, and a walkover / watercourse survey will be undertaken of the entire watercourse, including culverts.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
																Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2002	Churchill	BA/NS/2014/LFRMS/Churchill/6.2.9.2 1	Evidence from local residents from 2012 indicates that there is a collapsed culvert underneath the road (Doleberrow), and that there were blocked drains and gullies Any requirements to enhance the maintenance regime of highway drainage or watercourses will be recorded in asset register plus to ensure that the maintenance regime is appropriately captured which contributed to flooding	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2003	Churchill	BA/NS/2014/LFRMS/Churchill/6.2.9.3 1	We will undertake an investigation to identify whether there is a capacity issue associated with the watercourse and/or culverts within the area. This may involve simplified hydrological / hydraulic assessment or a detailed 1D-2D hydraulic model if necessary to support a business case for FDGiA funding.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2004	Langford	BA/NS/2014/LFRMS/Langford/6.2.10.1 1	A study will be undertaken to investigate the hydraulic capacity of the watercourse and the existing natural flood defences on the right and left bank	N	Y	N	N	N	N	Y	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
ACT2005	Langford	BA/NS/2014/LFRMS/Langford/6.2.10.2 1	An investigation is required to assess whether the existing highway drainage network could be improved to drain water off the highway or whether runoff could be managed at source	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2006	Langford	BA/NS/2014/LFRMS/Langford/6.2.10.3 1	We will investigate the existing condition of the highway drainage network in Langford and evaluate any improvements to the maintenance regime required.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2012	Portbury	BA/NS/2014/LFRMS/Portbury/6.2.13.1 1	A watercourse survey of the watercourse and ponds which run along the west of Portbury Lane to establish their capacity and condition needs to be completed	N	Y	N	N	N	N	Y	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2013	Portbury	BA/NS/2014/LFRMS/Portbury/6.2.13.2 1	Flooding in Portbury is caused by pluvial runoff from the south flowing on Failand Lane and Mill Lane, before arriving in the village and causing property flooding. Options to intercept and divert pluvial runoff will be investigated	N	N	N	N	N	N	Y	N	N	Y	N	N	M31 - Natural flood management / runoff and catchment management	2027 - 2033	Low	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic								
																	Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT2014	Clevedon	BA/NS/2014/LFRMS/EClevedon/6.2.14.1 1	This area is natural susceptible to surface water flooding. Further work will be undertaken to establish the drainage within this area and the cause of flooding, which will result in a recommendation for mitigation measures.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2021 - 2027	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy		
ACT2015	Clevedon	BA/NS/2014/LFRMS/EClevedon/6.2.14.2 1	There was recorded flooding in Kingston Avenue in 2012, but the cause of this flooding is uncertain. Working with local communities NSC will investigate the cause of flooding and recommend suitable mitigation measures. There is some reported evidence of flooding due to elevated groundwater levels	N	N	N	N	N	N	Y	Y	N	Y	N	N	M33 - Channel, coastal and floodplain works	2027 - 2033	Low	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy		
ACT2017	Clevedon	BA/NS/2014/MTP/Clevedon Sea/3 1	Repairs to Sea Wall at Clevedon to maintain the standard of protection	N	N	N	Y	N	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	Pre 2015	Very High	North Somerset Unitary Authority	Non statutory FRMP	SMP		

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
ACT2037	Avonmouth and Severnside	BA/BCC/Avonmouth Flood Defence 1	Carry out investigations and assessments to inform the design of possible flood mitigation proposals identified by the feasibility study.	N	Y	N	Y	N	N	N	N	N	Y	N	Y	M24 - Other prevention	2015 - 2021	Critical	City of Bristol Unitary Authority, Environment Agency, Local Enterprise Partnership, South Gloucestershire Council	Non statutory FRMP	Local FRM Strategy
ACT2049	Pill, North Somerset	BA/BFRA/2014/LFRMS/Pill/6.2.11.1 1	The operation of the surface water pump in Pill will be assessed by the Environment Agency and NSC	N	Y	N	N	N	N	Y	N	N	Y	N	N	M35 - Other protection	2027 - 2033	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2050	Pill, North Somerset	BA/BFRA/2014/LFRMS/Pill/6.2.11.2 1	We will investigate the existing condition of the highway drainage network and evaluate any improvements to the maintenance regime required in Pill.	N	N	N	N	N	N	Y	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
ACT2079	B&NES area wide	BA/BANES/SWMP for Weston Area 1	We are investigating options for drainage improvement schemes to address known drainage issues that may result in flooding across B&NES area.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M34 - Surface water management	2015 - 2021	High	Bath and North East Somerset Unitary Authority	Non statutory FRMP	FRMP
ACT2081	BANES area wide	BA/BANES/Suds Approval Body: BANES SPD 1	As part of the West of England Partnership, we are producing a Suds guidance document for developers to inform them of the National and Local SuDs standards and surface water management.	N	N	Y	N	N	N	Y	Y	N	Y	N	N	M24 - Other prevention	2015 - 2021	High	Bath and North East Somerset Unitary Authority	Non statutory FRMP	FRMP
ACT2082	B&NES area wide	BA/BANES/Establishment of Strategic Flood Board 1	We will maintain effective cooperation between our Strategic Flood Board and our Operational Flood Working group including RMA partners and interested parties.	N	N	Y	N	N	N	Y	Y	N	Y	N	N	M24 - Other prevention	2015 - 2021	High	Bath and North East Somerset Unitary Authority	Non statutory FRMP	FRMP
ACT2083	B&NES area wide	BA/BANES/Flooding Incidents Register 1	We will maintain our Flooding Incidents register that is an ongoing record of property level flooding in the area. This register will inform flood investigation reporting.	N	N	Y	N	N	N	Y	Y	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Bath and North East Somerset Unitary Authority	Non statutory FRMP	FRMP

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
ACT2085	Chew Magna village initially with other areas considered.	BA/BANES/Chew Magna PLP scheme 1	We are working in partnership with the Environment Agency on Property Level Protection schemes across our area.	Y	N	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	High	Bath and North East Somerset Unitary Authority	Non statutory FRMP	FRMP
ACT2088	B&NES area wide	BA/BANES/Flood Asset Register 1	We will improve and maintain our Flood Risk Asset Register.	N	Y	N	N	N	N	Y	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Bath and North East Somerset Unitary Authority	Non statutory FRMP	FRMP
ACT1963	General North Somerset Council Area	BA/NS/2014/LFRMS/Asset R/6.1.1 1	Establish Asset Register Plus - more comprehensive system available to partners, stakeholders and the public to view via our website Additional data will be gathered using a risk-based approach, focusing on the most vulnerable communities identified in the LFRMS.	N	N	Y	Y	N	N	Y	N	N	N	N	Y	M24 - Other prevention	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1964	SOMERSET	BA/NS/2014/LFRMS/Sec19 /6.1.2 1	Under our leadership role we will develop a protocol in partnership with the relevant Risk Management Authorities which will clearly outline how we propose to approach investigating flood incidents.	N	N	N	N	N	N	Y	Y	N	Y	N	N	M53 - Other recovery and review	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
																Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1965	SOMERSET	BA/NS/2014/LFRMS/Sch1/6.1.3 1	We will develop a collaborative protocol with the Environment Agency and Internal Drainage Boards. The protocol will set out how designating authorities should identify structures or features to be designated, and the process to designate a structure or feature.	N	N	N	N	N	N	Y	N	N	N	N	Y	M53 - Other recovery and review	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1966	SOMERSET	BA/NS/2014/LFRMS/HistD/6.1.4 1	We will continue to liaise with parish councils and Community Resilience groups to identify any additional flood incident data from 2012 and preceding flooding incidents. Furthermore, we will also work with parish councils to establish mechanisms to facilitate data sharing in the event of future flooding.	N	N	Y	Y	N	N	Y	N	N	N	Y	N	M24 - Other prevention	2015 - 2021	Low	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1967	SOMERSET	BA/NS/2014/LFRMS/Resil/6.1.5 1	Work with Community Resilience groups across North Somerset to build communities which can be more resilient to flooding. Recognising that resources are limited we will prioritise community resilience to flooding in those communities which are identified in LFRMS as being most vulnerable to flood risk	N	N	N	N	N	N	Y	Y	N	Y	N	N	M53 - Other recovery and review	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
ACT1968	SOMERSET	BA/NS/2014/LFRMS/Consent/6.1.6 1	We will develop a protocol for consenting and enforcement works on ordinary watercourses to ensure consistency and transparency.	N	Y	N	N	N	N	N	N	N	N	N	Y	M24 - Other prevention	Pre 2015	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1969	SOMERSET	BA/NS/2014/LFRMS/2implemplan/6.1.7 1	We will develop a rolling two-yearly LFRMS implementation plan which will be reviewed and updated on an annual basis	N	N	N	N	N	Y	N	N	N	N	Y	M24 - Other prevention	Pre 2015	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy	
ACT1970	Weston-Super-Mare and Clevedon, North Somerset	BA/NS/2014/LFRMS/Coast/6.1.9 1	Tidal flood defence assets at Weston-super-Mare and Clevedon. We will operate and maintain the tidal flood defences where we are the operating authority, in partnership with the Environment Agency.	N	N	N	Y	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy	
ACT1971	General North Somerset Council Area	BA/NS/2014/LFRMS/Asset/6.1.10 1	The risk-based approach will seek to identify the assets whose performance will most significantly affect flood risk (e.g. where blockages to a culvert would cause property flooding). We will need to prioritise our maintenance programme for assets due to the availability of funding.	N	N	N	N	N	Y	N	N	N	N	Y	M23 - Reduction	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy	

Measures in the Bristol Avon and North Somerset Streams catchment – LLFA measures outside the Bristol Flood Risk Area

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion											Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan Type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment							
																Prevention(M2x) protection (M3x), preparedness (M4x), recovery & review(M5x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1972	General North Somerset Council Area	BA/NS/2014/LFRMS/SAB/6.1.12 1	Develop local SUDS guidance in collaboration with our WEP partners , which will complement the national SUDS standards, are more bespoke to North Somerset and will consider how green infrastructure is considered as part of SUDS infrastructure.	N	N	N	N	N	N	Y	N	N	Y	N	N	M31 - Natural flood management / runoff and catchment management	Pre 2015	High	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT1973	General North Somerset Council Area	BA/NS/2014/LFRMS/Flood Aware/6.1.16 1	We will produce an information brochure in collaboration with the community resilience team and will distribute it online and via parish councils	N	N	Y	Y	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	North Somerset Unitary Authority	Non statutory FRMP	Local FRM Strategy
ACT2020	General North Somerset Council Area	BA/NS/2014/SWMP/WsM/SewerSeparation/3 1	Flooding of combined sewers requires separation work to provide additional capacity in a new surface water sewer network and above ground swales and ponds work to be carried out by Wessex Water	N	N	N	N	N	N	Y	N	Y	Y	N	N	M34 - Surface water management	2015 - 2021	High	North Somerset Unitary Authority	Non statutory FRMP	SWMP

Measures in the English Severn Uplands catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3213	Shrewsbury	Property Level Protection - Shrewsbury	Work with the community in Shrewsbury to raise awareness of flooding and promote property level protection measures to reduce flood risk. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3216	Llanyblodwel	Rapid response catchment awareness - Llanyblodwel	Rapid response catchment awareness in Llanyblodwel. Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	N	N	Y	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Environment Agency	statutory FRMP	FRMP
ACT3258	Vyrnwy Confluence	Assess role of raised defences - Vyrnwy Confluence	Assess role of raised defences at Vyrnwy confluence	Y	N	N	N	N	N	N	N	N	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3266	Melverley	Continue maintenance and warning - Melverley	Continue with defence and channel maintenance and flood warning at Melverley	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3267	Severn Uplands	Continue maintenance and warning - Severn Uplands	Continue with channel maintenance and flood warning at Hayes, Red Abbey, Shrawardine and Montford	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3302	Catchment wide	Review maintenance operations	Review maintenance operations. Work with land owners and land managers to identify opportunities for reducing the intensity of publicly funded maintenance operations. Review maintenance operations in line with the findings of Defra's R and D Technical Report FD1920/TR.	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP

Measures in the English Severn Uplands catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic	Prevention, protection, preparedness etc						
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT7166	Severn catchments	Reduction of sewer flooding	Severn Trent Water will continue to invest in the reduction of flood risk to properties at known risk of sewer flooding	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7167	Catchments in Severn RBD	Partnership funding opportunities	Severn Trent Water will invest in partnership funding opportunities, in conjunction with other beneficiaries and risk management authorities, where their customers directly benefit from any investment made.	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 - Other prevention	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7168	Severn RBD catchments	Contribute to the development of surface water management plans.	Severn Trent Water will continue to contribute to the development of surface water management plans. This will include the sharing of data, delivery of modelling expertise and outputs from sewer modelling.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7169	Severn RBD catchments	Development of sewerage management plans	Severn Trent Water will continue to develop sewerage management plans for their high risk catchments throughout AMP6, which will help to inform future investment.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7170	Catchments in Severn RBD	Maintenance of sewers	Severn Trent Water will continue to carry out risk based maintenance on their sewers to ensure that service is maintained to customers.	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7171	Catchments in Severn RBD	Raise awareness to help reduce preventable sewer flooding incidents	Severn Trent Water will continue to raise awareness of flooding caused by fats, oils, grease and unflushable materials such as wet wipes and nappies. This will help to reduce the number of preventable sewer flooding incidents.	N	N	N	N	N	N	N	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	

Measures in the Shropshire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic	Prevention, protection, preparedness etc						
ACT3304	Catchment wide	Review effectiveness of raised defences	Review the effectiveness of all raised defences (including use of temporary defences, where applicable). Determine the impact of removal / non-maintenance of defences on flooding in this Policy Unit and elsewhere. High value agricultural assets should be included in the economic assessment of the ongoing viability of the defences. Undertake a study to determine the impact of removal / non-replacement of defences. Work with landowners that maintain private defences to ensure that our management aims are complementary	Y	N	N	N	N	N	N	N	N	N	Y	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	Severn	
ACT7166	Severn catchments	Reduction of sewer flooding	Severn Trent Water will continue to invest in the reduction of flood risk to properties at known risk of sewer flooding	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7167	Catchments in Severn RBD	Partnership funding opportunities	Severn Trent Water will invest in partnership funding opportunities, in conjunction with other beneficiaries and risk management authorities, where their customers directly benefit from any investment made.	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 - Other prevention	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7168	Severn RBD catchments	Contribute to the development of surface water management plans.	Severn Trent Water will continue to contribute to the development of surface water management plans. This will include the sharing of data, delivery of modelling expertise and outputs from sewer modelling.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7169	Severn RBD catchments	Development of sewerage management plans	Severn Trent Water will continue to develop sewerage management plans for their high risk catchments throughout AMP6, which will help to inform future investment.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7170	Catchments in Severn RBD	Maintenance of sewers	Severn Trent Water will continue to carry out risk based maintenance on their sewers to ensure that service is maintained to customers.	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2321 #	Dudley	Greenfield Runoff Rates (Dudley)	Discharge limited to greenfield rate	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M21 - Avoidance	2015 - 2021	High	Dudley Metropolitan District	Non statutory FRMP	FRMP
ACT2322 #	Sandwell	Greenfield Runoff Rates (Sandwell)	Discharge limited to greenfield rate	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M21 - Avoidance	2015 - 2021	High	Sandwell Metropolitan District	Non statutory FRMP	FRMP
ACT2324 #	Wolverhampton	Greenfield Runoff Rates (Wolverhampton)	Discharge limited to greenfield rate	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M21 - Avoidance	2015 - 2021	High	Wolverhampton Metropolitan District	Non statutory FRMP	FRMP
ACT2325 #	Dudley	Brownfield Runoff Rates (Dudley)	Discharge limited to greenfield rate for sites requiring an FRA	N	N	Y	N	N	N	Y	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Dudley Metropolitan District	Non statutory FRMP	FRMP
ACT2326 #	Sandwell	Brownfield Runoff Rates (Sandwell)	Discharge limited to greenfield rate for sites requiring a FRA.	N	N	Y	N	N	N	Y	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Sandwell Metropolitan District	Non statutory FRMP	FRMP
ACT2328 #	Wolverhampton	Brownfield Runoff Rates (Wolverhampton)	Discharge limited to Greenfield rate for sites requiring a FRA.	N	N	Y	N	N	N	Y	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Wolverhampton Metropolitan District	Non statutory FRMP	FRMP
ACT2333 #	Dudley	Surface Water Disposal (Dudley)	In line with national guidance (i.e. Infiltration first, then watercourse, then SW sewer, then combined, then foul).	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M34 - Surface water management	2015 - 2021	High	Dudley Metropolitan District	Non statutory FRMP	FRMP
ACT2334 #	Sandwell	Surface Water Disposal (Sandwell)	In line with national guidance (i.e. Infiltration first, then watercourse, then SW sewer, then combined, then foul).	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M34 - Surface water management	2015 - 2021	High	Sandwell Metropolitan District	Non statutory FRMP	FRMP

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2336 #	Wolverhampton	Surface Water Disposal (Wolverhampton)	In line with national guidance (i.e. Infiltration first, then watercourse, then SW sewer, then combined, then foul).	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M34 - Surface water management	2015 - 2021	High	Wolverhampton Metropolitan District	Non statutory FRMP	FRMP///
ACT2337 #	Dudley	Surface Water Attenuation (Dudley)	The Council and developers should ensure appropriate Sustainable Drainage Systems (SuDS), or equivalent techniques are implemented into all new developments (as per the Floods and Water Management Act and in line with SABs and CIRIA C697 guidelines).	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M34 - Surface water management	2015 - 2021	Moderate	Dudley Metropolitan District	Non statutory FRMP	FRMP
ACT2338 #	Sandwell	Surface Water Attenuation (Sandwell)	The Council and developers should ensure appropriate Sustainable Drainage Systems (SuDS), or equivalent techniques are implemented into all new developments (as per the Floods and Water Management Act and in line with SABs and CIRIA C697 guidelines).	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M34 - Surface water management	2015 - 2021	Moderate	Sandwell Metropolitan District	Non statutory FRMP	FRMP
ACT2340 #	Wolverhampton	Surface Water Attenuation (Wolverhampton)	The Council and developers should ensure appropriate Sustainable Drainage Systems (SuDS), or equivalent techniques are implemented into all new developments (as per the Floods and Water Management Act and in line with SABs and CIRIA C697 guidelines).	N	N	Y	N	N	N	Y	N	Y	N	N	Y	M34 - Surface water management	2015 - 2021	Moderate	Wolverhampton Metropolitan District	Non statutory FRMP	FRMP
ACT2373 #	Dudley	Functional Floodplain (Dudley)	Where development lies adjacent to river corridors, tributaries or functional floodplain, reinstate natural, sinuous river channel and restore functional floodplain.	N	N	Y	N	N	N	N	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Dudley Metropolitan District	Non statutory FRMP	FRMP
ACT2374 #	Sandwell	Functional Floodplain (Sandwell)	Where development lies adjacent to river corridors, tributaries or functional floodplain, reinstate natural, sinuous river channel and restore functional floodplain.	N	N	Y	N	N	N	N	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Sandwell Metropolitan District	Non statutory FRMP	FRMP
ACT2376 #	Wolverhampton	Functional Floodplain (Wolverhampton)	Where development lies adjacent to river corridors, tributaries or functional floodplain, reinstate natural, sinuous river channel and restore functional floodplain.	N	N	Y	N	N	N	N	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Wolverhampton Metropolitan District	Non statutory FRMP	FRMP

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2381 #	Dudley	Deculverting (Dudley)	Deculvert where feasible. No building over existing culverts.	N	N	Y	N	N	N	N	N	N	Y	N	N	M21 - Avoidance	2015 - 2021	High	Dudley Metropolitan District	Non statutory FRMP	FRMP	
ACT2382 #	Sandwell	Deculverting (Sandwell)	Deculvert where feasible. No building over existing culverts.	N	N	Y	N	N	N	N	N	N	Y	N	N	M21 - Avoidance	2015 - 2021	High	Sandwell Metropolitan District	Non statutory FRMP	FRMP	
ACT2480	Worcestershire Middle Severn Catchment	Working in Partnership 1	Working in partnership with Risk Management Authorities and communities, as appropriate, to understand the risk of flooding from all sources. Partnership working will develop long term plans to manage the risks with direct involvement from the community in the decision making process.	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2481	Worcestershire Middle Severn Catchment	Preparedness and Resilience 1	Reduce the consequences of flooding by enabling communities to take effective action before, during and after a flood.	N	N	Y	N	N	Y	Y	N	N	Y	N	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2482	Worcestershire Middle Severn Catchment	Community Disruption 1	Minimise the impact of flooding to community services such as schools, hospitals, nursing/care/retirement homes, police stations, fire and ambulance stations, sewerage treatment works and electricity installations.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2483	Worcestershire Middle Severn Catchment	Flood Risk and Development 1	Avoid inappropriate development in areas of flood and coastal erosion risk, seeking opportunities to reduce existing and future flood risk through new and future development plans.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2484	Worcestershire Middle Severn Catchment	Reduce risk to people 1	Reduce flood risk to people and existing residential properties in priority communities.	N	N	Y	N	N	N	N	N	N	Y	N	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2485	Worcestershire Middle Severn Catchment	Maintain existing assets - residential properties1	Minimise the risk of flooding to residential properties by maintaining current levels of flood risk management within areas that already benefit from flood defences, subject to available funding.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2486	Worcestershire Middle Severn Catchment	River and watercourse maintenance 1	Continue appropriate levels of river and watercourse maintenance, subject to available funding.	N	N	Y	N	N	N	N	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2487	Worcestershire Middle Severn Catchment	Reduce Economic damage 1	Reduce the economic damage of flooding to non-residential properties in priority communities.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2488	Worcestershire Middle Severn Catchment	Maintain existing assets - non-residential 1	Minimise the economic damage from flooding to non-residential properties by maintaining current level of flood risk management within areas that already benefit from flood defences, subject to available funding.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2489	Worcestershire Middle Severn Catchment	Transport Services 1	Minimise the risk of flooding to key transport links within the catchment such as railway lines, motorways, primary roads and trunk roads.	N	N	Y	N	N	N	N	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2490	Worcestershire Middle Severn Catchment	Minimise Flood Risk to Agricultural Land 1	Consider the value of agricultural land, the damages that can occur as a result of flooding and the importance of food security within the economic appraisal of decision and investment options.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	
ACT2491	Worcestershire Middle Severn Catchment	WFD Objectives 1	Contribute to achieving WFD objectives by working with natural processes wherever possible, to manage flood risk through protecting and restoring the natural function of the catchment, rivers and floodplains.	N	N	Y	N	N	N	N	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans	

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2492	Worcestershire Middle Severn Catchment	Minimise impact of flooding to Nature Sites 1	Minimise the negative impacts of flooding to designated nature conservation sites (SSSI, SPA, SAC and Ramsar sites), wherever possible contributing to the improvement of such sites.	N	N	Y	N	N	N	Y	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans
ACT2493	Worcestershire Middle Severn Catchment	Minimise impact of flooding to Heritage Sites	Work with English Heritage and local authority heritage advisors to minimise the negative impacts of flooding to heritage assets and landscape value (SAMs, listed buildings and historic parks and gardens), wherever possible enhancing such assets.	N	N	Y	N	N	N	Y	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans
ACT2494	Worcestershire Middle Severn Catchment	Identify suitable opportunities for Sustainable Drainage Systems (SUDS), or equivalent	WFD objective to address poor water quality.	N	N	Y	N	N	N	N	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans
ACT2495	Worcestershire Middle Severn Catchment	Mitigation to heavily modified water bodies	WFD objective to de-culvert, endeavour to undertake riparian habitat enhancement, etc	N	N	Y	N	N	N	N	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans
ACT2496	Worcestershire Middle Severn Catchment	Work with others	We will work with others to continue to improve incident management and the advice and support that we provide on adapting to a changing climate. We will take a more integrated approach to our work in catchments and we will engage early with strategic spatial planning and Local Enterprise Partnerships (LEPs), or equivalent, to help enable sustainable growth and avoid delays to development. Work with local authorities, coastal groups and others to ensure that strategic plans take account of evidence and knowledge. Work with other organisations to help them make the best use of our risk	N	N	Y	N	N	N	N	N	N	N	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2501	Worcestershire Middle Severn Catchment	Emergency services	When a flood happens, we work with the emergency services and local authorities to minimise the harm to people and property. Provide leadership in reservoir safety and ensure that other organisations managing critical national infrastructure are aware of their risk and take action to manage it. Ensure that more partners develop effective flood plans, seeking community input and private sector support to ensure resilience and recovery. Enable and encourage more communities and individuals to develop effective flood plans, by providing data, information and easy-to-use web tools. Encourage businesses to consider the potential impacts of flooding on their premises, staff and supply chains as part of their business continuity plans. Work with our partners to increase the reach of information about flood risk and the actions that people can take to protect themselves from flooding.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans
ACT2502	Worcestershire Middle Severn Catchment	Better understanding	Help develop and promote a better understanding of flood and coastal erosion risk. Improve and update our assessment of flood and coastal risk in England, incorporating climate change impacts. Review and update flood hazard and risk maps for England by 2019. Improve evidence, information, and mapping and modelling tools to understand better the risks of flooding and coastal erosion and to support better decisions and greater resilience. Make flood and coastal risk information more accessible, taking account of social and technological change and opportunities, such as the increasingly widespread use of social media.	N	N	Y	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi Agency Flood Plans
ACT2551	Kinver	Kinver, River Stour, Property Level Protection	A single property requires property level protection. The property in question has been flooded internally and is seeking some form of raised bund or wall around the perimeter, as it does not appear practical to protect the openings	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	Very High	Staffordshire County	Non statutory FRMP	Local FRM Strategy

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
		Scheme	in the building. Investigate potential flood mitigation measures.																		
ACT2554	Dudley	Mushroom Green Dam, Dudley, Mousesweet Brook, Flood Alleviation Scheme	Mushroom Green Dam is downstream of Mousesweet Brook. A 50m culvert, which runs through the 10m high embankment is in need of maintenance. Investigate options for improvement.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	Very High	Dudley Metropolitan District	Non statutory FRMP	FRMP
ACT3204	Bewdley	Community engagement - Bewdley	Bewdley community engagement. Work with the community to encourage taking action to prepare for flooding within the town.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3214	Much Wenlock	Rapid response catchment awareness - Much Wenlock	Rapid response catchment awareness in Much Wenlock. Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	N	N	Y	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP
ACT3215	Coalbrookdale	Rapid response catchment awareness - Coalbrookdale	Rapid response catchment awareness in Coalbrookdale. Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	N	N	Y	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP
ACT3227	Astley	Rapid response catchment awareness - Astley	Rapid response catchment awareness in Astley (Wyre Forest). Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	N	N	Y	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3242	Bromsgrove	Flood risk reduction feasibility - Bromsgrove	Work with the community to assess the technical, environmental, and economic feasibility of using public money to provide measures to reduce flood risk from the Bromsgrove Tributaries and Spadesbourne and Battlefield Brooks. Implement measures with contribution from public funding if meets criteria. Seek partnership funding contributions as necessary.	N	N	Y	N	N	N	N	N	N	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3243	Blanquettes Estate	Measures to reduce flood risk - Blanquettes Estate	Work with the community at Blanquettes Estate to raise awareness of flood risk and to identify measures to reduce flood risk/improve resilience.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3244	Diglis	Property Level Protection - Diglis	Work with the community at Diglis to promote property level protection measures to reduce flood risk. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3245	Droitwich	Measures to reduce risk- Hunters Way, Droitwich	Work with the community at Hunters Way, Droitwich (Elmbridge Brook) to identify measures to reduce flood risk/improve resilience.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3246	Worcester	Property Level Protection - Worcester	Work with the community at Worcester to promote property level protection measures to reduce flood risk. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3275	Catchment wide	Vision for re-development of river channel	Agree a vision for the redevelopment of the river channel to inform planners, developers and riparian owners. The Strategic Flood Risk Assessment is an agreed approach between the Local Planning Authority and Environment Agency for allocating the location of future development and should be a living document.	N	N	Y	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP	

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3277	Severn Middle Worcestershire catchment	Continue maintenance and warning Middle Severn	Continue with channel maintenance and flood warning at Shrewsbury, Monkmore, Ironbridge, Coalport, Hampton, Bridgnorth, Bewdley, Stourport-on-Severn, Holt Fleet, Bevere, Worcester	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3281	Severn Middle Worcestershire catchment	Determine role of agricultural defences - Mid Sev	Determine the role of the agricultural defences in flood risk management within the catchment.	Y	N	N	N	N	N	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Low	Environment Agency	Statutory FRMP	CFMP
ACT3291	Severn River Basin District, catchment wide	Maintain current conveyance	Maintain current conveyance by keeping channels clear and free from obstructions. Reflect importance of WFD by retaining woody debris, gravel riffles etc in watercourse	Y	N	N	N	N	N	N	N	N	N	Y	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3292	Severn Middle Worcestershire catchment	Maintain defences - Kidderminster, Bromsgrove	Maintain current defences around Bromsgrove, Droitwich and Kidderminster and look for opportunities to set back defences through redevelopment, including development opportunities around Bromsgrove and Droitwich. To deliver multiple flood risk and environmental benefits. Consider possible partnership working.	Y	N	N	N	N	N	N	N	N	Y	Y	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT4034	Stourbridge	Stourbridge Warf	Form and design of residential development on these sites should reflect this canal and river setting and have measures in place to mitigate against flooding.	Y	N	N	N	N	N	Y	N	N	Y	N	N	M23 - Reduction	2015 - 2021	High	Dudley Metropolitan District	Non statutory FRMP	Local FRM Strategy
ACT4035	Black Country	Functional Floodplain (Black Country)	Form and design of residential development on these sites would reflect this canal and river setting, have measures in place to mitigate against flooding.	N	N	Y	N	N	N	Y	N	N	Y	N	N	M42 - Emergency event response planning / contingency planning	2015 - 2021	Moderate	Dudley Metropolitan District	Non statutory FRMP	FRMP

Measures in the Worcestershire Middle Severn catchment

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT4803 #	Staffordshire	Staffordshire Local Flood Risk Management Strategy Actions	Local flood risk management actions for Staffordshire, which includes part of the West Midlands Flood Risk Area, will be delivered as set out in the Local Flood Risk Management Strategy.	N	N	N	N	N	N	Y	N	N	N	Y	M34 - Surface water management	2015 - 2021	High	Staffordshire	Statutory FRMP	Local FRM Strategy	
ACT7149 #	Worcestershire	Worcestershire Local Flood Risk Management Strategy Actions	Local flood risk management actions for Worcestershire, which includes part of the West Midlands Flood Risk Area will be delivered as set out in the Local Flood Risk Management Strategy	N	N	N	N	N	N	Y	N	N	N	Y	N	M34 - Surface water management	2015 - 2021	High	Worcestershire County	Non statutory FRMP	Local FRM Strategy
ACT7166	Severn catchments	Reduction of sewer flooding	Severn Trent Water will continue to invest in the reduction of flood risk to properties at known risk of sewer flooding	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7167	Catchments in Severn RBD	Partnership funding opportunities	Severn Trent Water will invest in partnership funding opportunities, in conjunction with other beneficiaries and risk management authorities, where their customers directly benefit from any investment made.	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 - Other prevention	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7168	Severn RBD catchments	Contribute to the development of surface water management plans.	Severn Trent Water will continue to contribute to the development of surface water management plans. This will include the sharing of data, delivery of modelling expertise and outputs from sewer modelling.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7169	Severn RBD catchments	Development of sewerage management plans	Severn Trent Water will continue to develop sewerage management plans for their high risk catchments throughout AMP6, which will help to inform future investment.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP

Measures in the Worcestershire Middle Severn catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT7170	Catchments in Severn RBD	Maintenance of sewers	Severn Trent Water will continue to carry out risk based maintenance on their sewers to ensure that service is maintained to customers.	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7171	Catchments in Severn RBD	Raise awareness to help reduce preventable sewer flooding incidents	Severn Trent Water will continue to raise awareness of flooding caused by fats, oils, grease and unflushable materials such as wet wipes and nappies. This will help to reduce the number of preventable sewer flooding incidents.	N	N	N	N	N	N	N	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP

Indicates measure that only applies within the West Midlands Flood Risk Area.
 The West Midlands FRA is located within both the Severn and Humber River Basin Districts, but is being reported under the Humber River Basin District in which it predominantly sits.
 The HRA and SEA requirements have been included in the reviews carried out for the Humber FRMP.

Measures in the Teme catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3228	Shropshire	Slow the Flow - Shropshire Rivers	Work with partners to investigate opportunities where natural processes can be used to reduce flow into the watercourse and reduce flood risk downstream.	N	N	Y	N	N	N	N	N	N	N	Y	Y	M31 - Natural flood management / runoff and catchment management	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3230	Tenbury Wells	Community flood alleviation works - Tenbury Wells	Work with the community at Tenbury Wells (River Teme) to assess the long term strategy for delivering a suitable technical, environmental and economic justification of using public money to construct a permanent flood alleviation scheme. Seek partners and opportunities for contributions where necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3231	Cleobury Mortimer	Measures to reduce flood risk - Cleobury Mortimer	Work with the community to assess the technical, environmental, and economic feasibility of using public money to carry out measures to reduce flood risk at Cleobury Mortimer (Pudding Brook). Carry out measures with contribution from public funding if meets criteria. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3302	Catchment wide	Review maintenance operations	Review maintenance operations. Work with land owners and land managers to identify opportunities for reducing the intensity of publicly funded maintenance operations. Review maintenance operations in line with the findings of Defra's R and D Technical Report FD1920/TR.	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP
ACT3303	Teme	Review maintenance activities on Teme	Review of our current maintenance activities to ensure that weed control is carried out in the most effective way. Consideration of the impact of our Land Drainage Consenting (LDCs) activities on SSSI condition.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	Low	Environment Agency	Statutory FRMP	CFMP

Measures in the Teme catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT3304	Catchment wide	Review effectiveness of raised defences	Review the effectiveness of all raised defences (including use of temporary defences, where applicable). Determine the impact of removal / non-maintenance of defences on flooding in this Policy Unit and elsewhere. High value agricultural assets should be included in the economic assessment of the ongoing viability of the defences. Undertake a study to determine the impact of removal / non-replacement of defences. Work with landowners that maintain private defences to ensure that our management aims are complementary	Y	N	N	N	N	N	N	N	N	N	Y	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP	
ACT7166	Severn catchments	Reduction of sewer flooding	Severn Trent Water will continue to invest in the reduction of flood risk to properties at known risk of sewer flooding	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7167	Catchments in Severn RBD	Partnership funding opportunities	Severn Trent Water will invest in partnership funding opportunities, in conjunction with other beneficiaries and risk management authorities, where their customers directly benefit from any investment made.	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 - Other prevention	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7168	Severn RBD catchments	Contribute to the development of surface water management plans.	Severn Trent Water will continue to contribute to the development of surface water management plans. This will include the sharing of data, delivery of modelling expertise and outputs from sewer modelling.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7169	Severn RBD catchments	Development of sewerage management plans	Severn Trent Water will continue to develop sewerage management plans for their high risk catchments throughout AMP6, which will help to inform future investment.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7170	Catchments in Severn RBD	Maintenance of sewers	Severn Trent Water will continue to carry out risk based maintenance on their sewers to ensure that service is maintained to customers.	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	

Measures in the Teme catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT7171	Catchments in Severn RBD	Raise awareness to help reduce preventable sewer flooding incidents	Severn Trent Water will continue to raise awareness of flooding caused by fats, oils, grease and unflushable materials such as wet wipes and nappies. This will help to reduce the number of preventable sewer flooding incidents.	N	N	N	N	N	N	N	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT015	Northamptonshire	Northants LLFA increase knowledge of groundwater	Northamptonshire County Council as LLFA will continue to increase its knowledge and understanding of the extent of groundwater flood risk across the county. Produce guidance to assist planners and developers considering new development in areas which may be at risk of groundwater flooding.	N	N	N	N	N	N	N	Y	N	Y	N	N	M21 - Avoidance	Pre 2015	High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT016	Cold Ashby, Northamptonshire	Flood Risk Improvements Stanford Road Cold Ashby	Northamptonshire County Council as LLFA will investigate potential for flood risk improvement works at Stanford Road, Cold Ashby, to reduce risk of flooding to properties from surface water.	N	N	N	N	N	N	Y	N	N	Y	N	N	M34 – Surface water management	2015 - 2021	Moderate	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2262		Northants LLFA Flood Awareness Campaigns	Northamptonshire County Council as LLFA will explore opportunities for Flood Awareness Campaigns. A series of flood fairs were undertaken in 2011, which included public consultation on the LFRMS and the Northampton. Opportunities for future Flood Fairs should be explored.	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M43 – Public awareness & preparedness	2015 - 2021	High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2263		Northants LLFA Promote Partnership Working	Northamptonshire County Council as LLFA will continue to promote partnership working, maintaining communication between all partners and stakeholders through the Flood and Water Management Framework.	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M61 - Other	2015 - 2021	Very High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2264		Training of Northants Call-Centre Staff	Northamptonshire LLFA will train staff in each of the call centres to enable correct advice to be given to the public in a flood event, ensuring right questions are asked and information is recorded correctly and is saved on a database.	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M42 – Emergency event response planning / contingency planning	2015 - 2021	High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2265		Investigate Flood Incidents in Northants	Northamptonshire LLFA will investigate flooding incidents in accordance with Flood and Water Management Act (2010). Undertake formal investigations of flood incidents that occur and meet the thresholds set. Continue to send monthly reminders for partners to provide records of flooding incidents.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M51 – Individual & societal recovery, clean up	2015 - 2021	Critical	Northamptonshire County	Non statutory FRMP	Local FRM Strategy

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2266		Develop GIS tools for Northants LLFA	Northamptonshire County Council has a GIS tool which is used for planning, which will continue to be developed to include the results of new strategies, plans and studies, to ensure that surface water and other local sources of risk are accurately presented and can be used to inform planning decisions. Tool will be expanded to include identification of suitability for infiltration SuDS within Northamptonshire, to advise on drainage applications.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M21 - Avoidance	2015 - 2021	High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2267		Northants LLFA actions in high priority areas	The LLFA will continue to develop and implement actions in highest priority wards, taking account of climate change implications. The following activities will be given precedence: Greater than Data collection and registration of existing assets, particularly focussed on Ordinary Watercourses and surface water features; Greater than Review of flooding hotspots and investigation into the cause of historic flooding along with the assessment of suitable flood mitigation schemes; Greater than Designation of assets which have a significant flood defence function; and Greater than Establishing regular, proactive culvert inspection and maintenance regimes on council owned assets.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M44 – Other preparedness	2015 - 2021	Low	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2269	Wellingborough, East Northants, South Northants, Daventry	District-wide SWMPs in Northamptonshire	Northamptonshire LLFA will carry out SWMPs for the Borough of Wellingborough, the District of East Northants, the District of South Northants and the District of Daventry, to gain a better understanding of surface water flooding mechanisms in the areas, for the subsequent development of priority flood alleviation measures. To include identification of areas where targeted maintenance and improvements to watercourses and drainage systems are required. Planners to be informed of areas identified to be vulnerable to surface water flooding.	N	Y	N	N	N	N	Y	N	Y	Y	N	N	M34 – Surface water management	Pre 2015	High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2278	Northamptonshire	Northants LLFA to inform development plan policy	Northamptonshire LLFA will continue to inform new and update development plan policies, ensuring planning officers are aware of ongoing changes in national and local policy. Ensure lines of communication and roles and responsibilities are clear. Inform planning officers of the outputs of the LFRMS for Northamptonshire.	N	Y	N	N	N	N	Y	Y	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2279	Northamptonshire	Assess impact of floods on environmental sites	Northamptonshire LLFA will work in partnership with the Wildlife Trust to assess the potential positive, negative and neutral impacts of flooding on designated environmental sites, to improve understanding of flood risk and to inform updates of the prioritisation assessment for the LFRMS.	N	N	Y	N	N	N	Y	Y	N	N	Y	N	M35 – Other protection	Pre 2015	Low	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2280	Northamptonshire	Assess impact of floods on heritage sites	Northamptonshire LLFA will work in partnership to assess the potential positive, negative and neutral impacts of flooding on designated heritage sites, to improve understanding of flood risk and to inform updates of the prioritisation assessment.	N	N	Y	N	N	N	Y	Y	N	N	Y	N	M35 – Other protection	2015 - 2021	Low	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2281	Northamptonshire	Promote environmental actions in Northants LFRMS	Northamptonshire LLFA will promote environmental actions including: de-culverting, natural flood risk management, blue/green infrastructure, increased tree cover, and catchment sensitive farming.	N	N	Y	N	N	N	Y	Y	N	N	Y	N	M31 – Natural flood management / runoff & catchment management	2015 - 2021	Moderate	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2282	Northamptonshire	Promote WFD improvements ordinary watercourses	WFD investigations on heavily modified ordinary watercourses resulted in a number of actions to improve their status. Northamptonshire County Council as LLFA will promote these actions as opportunities arise.	N	Y	N	N	N	N	N	N	N	N	Y	N	M31 – Natural flood management / runoff & catchment management	2015 - 2021	Moderate	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2283	Northamptonshire	Maintain Multi Agency Flood Plan for Northants	Northamptonshire County Council will work with the Local Resilience Forum (LRF) to review and update the Multi Agency Flood Plan (MAFP) and disseminate outputs of any studies undertaken. LRF will continue to develop business continuity, emergency and evacuation plans, and review essential and critical infrastructure protection, to inform the MAFP.	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M42 – Emergency event response planning / contingency planning	2015 - 2021	Moderate	Northamptonshire County	Non statutory FRMP	Local FRM Strategy

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2284	Northamptonshire	Community Flood Resilience Project for Northamptonshire	Northamptonshire LLFA will undertake a project to develop community flood resilience in Northamptonshire. A community flood toolkit will be developed for 15 pilot communities. The tools and guidance will then be available to other communities through a web portal. The projects approach will be to help communities to understand their flood risk and enable them to work out local resilience solutions.	N	Y	N	N	N	N	Y	Y	N	Y	N	N	M43 – Public awareness & preparedness	2015 - 2021	Very High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2285	Northamptonshire	Explore flood warnings linked to CCTV	Northamptonshire LLFA will explore potential for flood warnings to be linked to CCTV, combining existing systems to see real time flooding incidents.	N	Y	N	N	N	N	N	N	N	N	N	Y	M41 – Flood forecasting & warning	2015 - 2021	Low	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2297	Northamptonshire	Northants LLFA to set up SuDS Approval Body	Northamptonshire LLFA will set up the SuDS Approval Body (SAB), to include creation of local SuDS Guidance, determination of SAB applications, enforcement, management, adoptions, designations, appeals and future maintenance.	N	N	N	N	N	N	Y	N	N	Y	N	N	M21 - Avoidance	Pre 2015	Very High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2298	Northamptonshire	Northants LLFA to create flood guidance leaflets	Northamptonshire LLFA will create a series of leaflets/guidance notes, to assist in communications. Subjects will include: local sources of flood risk, flood risk and development, riparian responsibilities, WFD, insurance etc.	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M43 – Public awareness & preparedness	Pre 2015	High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2299	Northamptonshire	Northants LLFA to secure funding as required	Northamptonshire LLFA will continue to develop and establish short and long term funding arrangements to deliver the requirements of the Flood and Water Management Act. This to include bidding for relevant funding as and when the opportunity arises, to support future projects and flood alleviation schemes i.e. Flood Defence Grant in Aid funding.	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M61 - Other	2015 - 2021	Very High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy
ACT2300	Northamptonshire	Northants LLFA to influence funding arrangements	Northamptonshire LLFA will ensure Infrastructure Development Plans, Community Infrastructure Strategies and Transport Infrastructure Plans are influenced by the LFRMS and that developer funding is sought where considered appropriate and necessary. When information or studies become available, any schemes, including their costs, will be identified and added to the Infrastructure Delivery Plan or Community	N	N	Y	N	N	N	Y	Y	N	N	N	Y	M61 - Other	2015 - 2021	High	Northamptonshire County	Non statutory FRMP	Local FRM Strategy

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
			system and overloading of the sewers.																		
ACT2506	Redditch	Flood Warning Service (Redditch)	Redditch has a Flood Warning Service for River Arrow.	Y	N	N	N	N	N	N	N	N	Y	N	N	M41 – Flood forecasting & warning	2015 - 2021	High	Redditch District	Non statutory FRMP	Local FRM Strategy
ACT2507	Redditch	Mapping, Flood Zones and Development Areas (Redditch)	Until a Level 2 SFRA has been produced or appropriate site specific Flood Risk Assessments (FRAs), or equivalent, show this zone for the above watercourses to the satisfaction of the Environment Agency, it is recommended that all areas within Flood Zone 3a, (FZ3a), or equivalent, where available, should be considered as the Functional Floodplain.	N	N	Y	N	N	N	N	N	N	N	Y		M44 – Other preparedness	2015 - 2021	Moderate	Redditch District	Non statutory FRMP	Local FRM Strategy
ACT2508	Redditch	Potential development site specification(Redditch)	Where land in Flood Zone 2, 3a or 3b (Functional Floodplain) or above one hectare in Flood Zone 1 is proposed for development, a comprehensive Flood Risk Assessment (FRA) will be required.	N	N	Y	N	N	N	N	N	N	N	Y		M44 – Other preparedness	2015 - 2021	High	Redditch District	Non statutory FRMP	Local FRM Strategy
ACT2509	Redditch	Effects of Climate Change on development(Redditch)	If adjacent watercourse has no flood zone definition then a site specific flood risk assessment should be carried out or a new model constructed to assess the flood risk to the site including effects of Climate Change.	N	N	Y	N	N	N	N	N	N	N	Y		M44 – Other preparedness	2015 - 2021	Low	Redditch District	Non statutory FRMP	Local FRM Strategy
ACT2510	Redditch	Surface Water Management(Redditch)	Management of surface runoff from the proposed sites should use a combination of site specific and strategic Sustainable Drainage Systems (SuDS), or equivalent, measures encouraging "source control" where possible. These measures should be developed with a strategic approach to flood management in mind.	N	N	N	N	N	N	Y	N	N	Y	N		M21 - Avoidance	2015 - 2021	Moderate	Redditch District	Non statutory FRMP	Local FRM Strategy
ACT2511	Redditch	WFD (Redditch)	The development of any site should not lead to deterioration of EU Water Framework Directive (WFD) water body status nor have a negative impact on water quality, either directly through the pollution of surface or ground water or indirectly through overloading of	N	N	Y	N	N	N	Y	N	N	N	Y		M31 – Natural flood management / runoff & catchment	2015 - 2021	High	Redditch District	Non statutory FRMP	Local FRM Strategy

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
			sewage treatment work. Development should, where necessary and feasible, help to conserve and enhance watercourses and riverside habitats.													management					
ACT2512	Redditch	Attenuation Storage (Redditch)	Investigate opportunities to provide on-site attenuation for flooding.	N	N	Y	N	N	N	N	N	N	N	Y	M24 – Other prevention	2015 - 2021	Moderate	Redditch District	Non statutory FRMP	Local FRM Strategy	
ACT2513	Redditch	Flood Risk Reduction (Redditch)	The greatest risk of flooding within Redditch Borough is from rapid rainfall runoff resulting in high flows on poorly maintained ordinary watercourses which are constrained by development and subsequently overtop. It is therefore imperative that any new development takes this into account and minimises the volume of runoff produced through the implementation of Sustainable Drainage Systems (SuDS), or equivalent, especially where located on greenfield sites.	N	N	Y	N	N	N	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	High	Redditch District	Non statutory FRMP	Local FRM Strategy	
ACT2514	Redditch	Flood Risk(Redditch)	Redditch town suffers from urban runoff and underlying impermeable clayey substrata. These two factors result in fairly high levels of overland flow, which has caused flooding on numerous occasions, affecting both highways and properties.	N	N	Y	N	N	N	N	N	N	N	Y	M44 – Other preparedness	2015 - 2021	Moderate	Redditch District	Non statutory FRMP	Local FRM Strategy	
ACT2515	Redditch	Functional Floodplain(Redditch)	Endeavour to maintain the functional floodplain for the River Arrow (upstream extent is north of Arrow valley park, SP 052 507); and Bow Brook, the Swans Brook, the Wixon Brook and the Wharrage (upstream extent of Sillins Lane on the Swans Brook and Swinbourne Road on The Wharrage). Functional floodplain still has to be identified for many other watercourses.	Y	N	N	N	N	N	N	N	N	N	Y	M44 – Other preparedness	2015 - 2021	Moderate	Redditch District	Non statutory FRMP	Local FRM Strategy	
ACT2516	Redditch	Functional Flood Plain (Redditch)	Where land in Flood Zones 2, 3a or 3b (Functional Floodplain, or equivalent) or above one hectare in Flood Zone 1, or equivalent, is proposed for development, a comprehensive Flood Risk Assessment (FRA), or equivalent, will be required.	Y	N	N	N	N	N	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Redditch District	Non statutory FRMP	Local FRM Strategy	

Measures in the Warwickshire Avon catchment

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2517	Rugby	Greenfield Runoff Rates 1(Rugby)	Discharge limited to Greenfield minus 20%.	N	N	Y	N	N	N	Y	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2518	Rugby	Greenfield Runoff Rates 2 (Rugby)	Surface water run-off rates should be limited to the Greenfield equivalent in areas upstream of flood risk problem areas wherever possible	N	N	Y	N	N	N	Y	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2519	Rugby	Brownfield Runoff Rates (Rugby)	Discharge limited to Greenfield minus 20%	N	N	Y	N	N	N	Y	N	N	Y	N	N	M21 - Avoidance	2015 - 2021	Moderate	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2521	Rugby	Surface Water Disposal (Rugby)	Infiltration Sustainable Drainage Systems (SuDS), or equivalent, should be promoted where it is practical. Where infiltration SuDS or equivalent are not applicable, surface water should be discharged to a watercourse in agreement with the EA.	N	Y	N	N	N	N	Y	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2522	Rugby	Surface Water Attenuation Form (Rugby)	The Council and developers should ensure appropriate Sustainable Drainage Systems (SUDS), or equivalent techniques are implemented into all new developments (as per the Floods and Water Management Act) and as far as possible retrofitted into existing settlements, especially where historic flood events have been identified; SUDS or equivalent should be proportionately incorporated in all new scales of developments.	N	N	Y	N	N	N	Y	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	High	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2526	Rugby	Finished Floor Levels (Rugby)	Proposed finished floor levels of new developments should be set 600mm above the 1 in 100 year (plus 20% allowance for climate change on peak flows) flood level.	N	N	Y	N	N	Y	Y	N	N	Y	N	N	M21 - Avoidance	2015 - 2021	Very High	Rugby District	Non statutory FRMP	Local FRM Strategy

Measures in the Warwickshire Avon catchment

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	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2527	Rugby	Watercourse buffer zone (Rugby)	Proposed development should be set back from the watercourse with a minimum 8m wide undeveloped buffer zone, to allow appropriate access for maintenance and emergency clearance	N	N	Y	N	N	N	N	N	N	Y	N	M21 - Avoidance	2015 - 2021	Low	Rugby District	Non statutory FRMP	Local FRM Strategy	
ACT2528	Rugby	Floodplain Storage Compensation (Rugby)	Proposed new developments should incorporate flood storage where appropriate.	N	N	Y	N	N	N	N	N	N	N	Y	M44 – Other preparedness	2015 - 2021	Moderate	Rugby District	Non statutory FRMP	Local FRM Strategy	
ACT2529	Rugby	Flood Resistance and Resilience Measures (Rugby)	A Flood Warning & Evacuation Plan should be prepared for developments within Flood Zone 3 (FZ3), or equivalent.	N	N	Y	N	N	N	Y	N	N	Y	N	M43 – Public awareness & preparedness	2015 - 2021	Very High	Rugby District	Non statutory FRMP	Local FRM Strategy	
ACT2530	Rugby	Stilts/ Voids (Rugby)	Act to avoid the construction of proposed developments on stilts, and the creation of voids.	N	N	Y	N	N	N	N	N	N	Y	N	M21 - Avoidance	2015 - 2021	Low	Rugby District	Non statutory FRMP	Local FRM Strategy	
ACT2531	Rugby	Basements (Rugby)	Habitable use of basements within Flood Zone 3 should not be permitted	N	N	N	N	N	N	Y	Y	N	Y	N	M21 - Avoidance	2015 - 2021	Low	Rugby District	Non statutory FRMP	Local FRM Strategy	
ACT2532	Rugby	Flood Risk Reduction (Rugby)	Encourage environmental best practice, sustainable construction, waste management and flood mitigation measures	N	N	Y	N	N	N	Y	N	N	Y	N	M44 – Other preparedness	2015 - 2021	High	Rugby District	Non statutory FRMP	Local FRM Strategy	
ACT2535	Rugby	Deculverting (Rugby)	De-culverting where possible	N	N	Y	N	N	N	Y	N	N	Y	N	M21 - Avoidance	2015 - 2021	High	Rugby District	Non statutory FRMP	Local FRM Strategy	

Measures in the Warwickshire Avon catchment

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	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2536	Rugby	Development behind defences (Rugby)	In line with FD2320. Properties situated within close proximity to formal defences or water retaining structures will require a detailed breach and overtopping assessment to ensure that the potential risk to life can be safely managed throughout the lifetime of the development	N	N	Y	N	N	N	Y	N	N	Y	N	N	M21 - Avoidance	2015 - 2021	High	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2537	Rugby	Access/ Egress (Rugby)	Safe, dry pedestrian access/ egress up to 100 year plus climate change event and emergency vehicle access possible during times of flood	N	N	Y	N	N	N	N	N	N	Y	N	N	M44 – Other preparedness	2015 - 2021	Low	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2538	Rugby	Development Adjacent to Canals (Rugby)	Any development adjacent to a canal should leave a minimum of an 8 metre wide buffer strip	N	N	Y	N	N	N	Y	N	N	Y	N	N	M21 - Avoidance	2015 - 2021	Low	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2539	Rugby	Car Parking (Rugby)	Car parking needs to be safe, especially in terms of flood warning and overnight parking areas.	N	N	N	N	N	N	Y	N	N	Y	N	N	M44 – Other preparedness	2015 - 2021	Low	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2540	Rugby	Functional Floodplain (Rugby)	Where there are no alternative options available, and development is required within the highest risk zone 3b, flood risk shall be managed through upstream alleviation in order to bring development in line with national planning policy	Y	N	N	N	N	N	N	N	N	N	N	Y	M21 - Avoidance	2015 - 2021	Moderate	Rugby District	Non statutory FRMP	Local FRM Strategy
ACT2541	Warwickshire Avon catchment	Maintain Flood Warning Service	Maintain, and where possible, seek to improve accuracy of our flood forecasting and warning capability in those areas where these services currently exist.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M44 – Other preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	Community action plans
ACT2542	Warwickshire Avon catchment	Expand Flood Warning Service	Investigate the feasibility of expanding the forecasting and warning service in communities at high fluvial flood risk where no service currently exists.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M41 – Flood forecasting & warning	2015 - 2021	High	Environment Agency	Statutory FRMP	Community action plans

Measures in the Warwickshire Avon catchment

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	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2543	Warwickshire Avon catchment	Community Engagement	Promote awareness of fluvial flooding and encourage flood action groups, individuals and businesses to take preparatory actions in high risk communities.	N	N	Y	N	N	N	N	N	N	Y	N	Y	M43 – Public awareness & preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Community action plans
ACT2545	Rugby	Bilton Road, Rugby, Surface Water Flood Alleviation Scheme	The area suffers flooding from both sewers, and surface water. Investigate a scheme that could potentially alleviate flooding problems from both sources.	Y	N	N	N	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Low	Warwickshire County	Non statutory FRMP	FRMP
ACT2546	Coventry	Broad Lane/Banner Lane, Brookstray, Flood Alleviation Scheme	Some properties on Broad Lane are at potential risk of flooding, as it is believed the culverted section of River Brookstray under Broad Lane is under-capacity. There have also been known historic flood events in the area. Coventry City Council are seeking funding local for improvements, which would include a flood management strategy.	Y	N	N	N	N	N	N	N	N	Y	N	N	M33 – Channel, coastal floodplain works	2015 - 2021	High	Coventry Metropolitan District	Non statutory FRMP	FRMP
ACT2547	Coventry	Butt Lane, Coventry, River Sherbourne, Property Level Protection Scheme	This project could address flooding from the River Sherbourne which occurs in Butt Lane. A potential solution could be property level protection and localised highway raising.	Y	N	N	N	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT2548	Shipston-on-Stour	Cherington, Shipston-on-Stour, Flood Alleviation Scheme	Flooding occurs from the rivers that flow northwards into the village, and from surface water. There have been two potential areas identified for the creation of flood storage, which could alleviate this problem.	Y	N	N	N	N	N	N	N	N	Y	N	N	M31 – Natural flood management / runoff & catchment management	2015 - 2021	Very High	Warwickshire County	Non statutory FRMP	FRMP
ACT2549	Fenny Compton	Fenny Compton, Flood Alleviation Scheme	Significant overland flow from surrounding fields has caused surface water flooding through the village. It has been identified that a potential solution could be a flood storage area, new road culvert, and a catch grid.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 – Other protection	2015 - 2021	Very High	Warwickshire County	Non statutory FRMP	FRMP

Measures in the Warwickshire Avon catchment

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2550	Kenilworth	Kenilworth, Finham Brook, Property Level Protection Scheme	Property flooding has occurred frequently in the past in the area. In response, the community has established a Flood Action Group and has secured funding for a property level protection scheme.	Y	N	N	N	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT2552	Rugby	Kites Hardwick, Rugby, River Leam, Property Level Protection Scheme	The predominant flood risk is from the River Leam, flowing from the north/east, but surface water flooding is also an issue, flowing from the south. The proposed solution is property level protection, subject to availability of funding.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 – Other protection	2015 - 2021	Very High	Warwickshire County	Non statutory FRMP	FRMP
ACT2553	Southam	Ladbroke, Southam, Lot Brook, Flood Alleviation Scheme	Complex flooding issues in Ladbroke are largely due to exceedance of channel capacity on Lot Brook. The issues include overland flood flow from fields, minor highways, surface water drainage systems and Lot Brook (including culvert blockages). There is also believed to be flood risk from flows draining from the bypass. It is also understood that flooding may occur due to the bridge on the old Banbury Road through the village, which may be providing a restriction to large flows. Investigate potential flood mitigation measures.	Y	N	N	N	N	N	N	N	N	Y	N	N	M44 – Other preparedness	2015 - 2021	Very High	Warwickshire County	Non statutory FRMP	FRMP
ACT2556	Rugby	Princethorpe, Rugby, Property Level Protection Scheme	Surface water flooding to two properties south of Leamington Road. The proposed solution is property level protection, subject to feasibility and funding.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 – Other protection	2015 - 2021	Very High	Warwickshire County	Non statutory FRMP	FRMP
ACT2557	Snitterfield, Warwickshire	Snitterfield, Bell Brook, Flood Alleviation Scheme	A culverted section of the Bell Brook under multiple ownership has been assessed as a failing asset. The Environment Agency is working with the local community to explore opportunities for flood risk management measures and repair of the culvert.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 – Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT2558	Stratford-Upon-Avon	Stratford-Upon-Avon, Racecourse Brook, Flood Alleviation Scheme	There is an area of historic flood risk immediately adjacent to the Racecourse Brook in Stratford-Upon-Avon. The flooding mechanism is a combination of an undersized culvert, insufficient channel capacity and overland flows. The flood mitigation solution is likely to be above ground flood attenuation, either in one single location, or at a number of locations in the upstream	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 – Other protection	2015 - 2021	Low	Environment Agency	Statutory FRMP	FRMP

Measures in the Warwickshire Avon catchment

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				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT2564	Warwickshire Avon catchment	Flood Risk and Development	Avoid inappropriate development in areas of flood and coastal erosion risk through application of the Technical Guidance to the National Planning Policy Framework and working in partnership with Lead Local Flood Authorities to create a strong flood protection capability. Seek opportunities to reduce existing and future flood risk through new and future development plans, through consultation with Upper and Lower Tier Authority planning teams.	N	N	Y	N	N	N	N	N	N	N	Y	N	Y	M21 - Avoidance	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans
ACT2565	Warwickshire Avon catchment	Reduce risk to people	Reduce flood risk to people and existing residential properties in priority communities.	N	N	Y	N	N	N	N	N	N	Y	N	N	M35 – Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	
ACT2566	Warwickshire Avon catchment	Maintain existing assets - residential properties	Minimise the risk of flooding to residential properties by maintaining current levels of flood risk management within areas that already benefit from flood defences, subject to availability of funding.	N	N	Y	N	N	N	N	N	N	N	Y	N	M24 – Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	
ACT2567	Warwickshire Avon catchment	River and watercourse maintenance	Continue appropriate levels of river and watercourse maintenance, subject to availability of funding.	N	N	Y	N	N	N	N	N	N	Y	N	N	M24 – Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	
ACT2568	Warwickshire Avon catchment	Reduce Economic damage	Reduce the economic damage of flooding to non-residential properties in priority communities, subject to the availability of funding.	N	N	Y	N	N	N	N	N	N	N	Y	N	M35 – Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	
ACT2569	Warwickshire Avon catchment	Maintain existing assets - non-residential	Minimise the economic damage from flooding to non-residential properties by maintaining current level of flood risk management within areas that already benefit from flood defences, subject to availability of funding.	N	N	Y	N	N	N	N	N	N	N	Y	N	M24 – Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	

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	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2570	Warwickshire Avon catchment	Transport Services	Minimise the risk of flooding to key transport links within the catchment such as railway lines, motorways, primary roads and trunk roads, subject to availability of funding.	N	N	Y	N	N	N	N	N	N	Y	N	N	M35 – Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans
ACT2571	Warwickshire Avon catchment	Minimise Flood Risk to Agricultural Land	Consider the value of agricultural land, the damages that can occur as a result of flooding and the importance of food security within the economic appraisal of decision and investment options.	N	N	Y	N	N	N	N	N	N	N	Y	Y	M44 – Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans
ACT2572	Warwickshire Avon catchment	WFD Objectives	Contribute to achieving WFD objectives by working with natural processes wherever possible, to manage flood risk through protecting and restoring the natural function of the catchment, rivers and floodplains.	N	N	Y	N	N	N	N	N	N	Y	N	N	M31 – Natural flood management / runoff & catchment management	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans
ACT2573	Warwickshire Avon catchment	Minimise impact of flooding to Nature Sites	Minimise the negative impacts of flooding to designated nature conservation sites (SSSI, SPA, SAC and Ramsar sites), wherever possible contributing to the improvement of such sites, subject to the availability of funding.	N	N	Y	N	N	N	Y	N	N	Y	N	N	M24 – Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans
ACT2574	Warwickshire Avon catchment	Minimise impact of flooding to Heritage Sites	Work with English Heritage and local authority heritage advisors to minimise the negative impacts of flooding to heritage assets and landscape value (SAMs, listed buildings and historic parks and gardens), wherever possible enhancing such assets, subject to the availability of funding.	N	N	Y	N	N	N	Y	N	N	N	Y	N	M24 – Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans
ACT2575	Warwickshire Avon catchment	Identify suitable opportunities for Sustainable Drainage Systems (SUDS), or equivalent.	WFD objective to address poor water quality.	N	N	Y	N	N	N	N	N	N	N	Y	N	M34 – Surface water management	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans

Measures in the Warwickshire Avon catchment

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	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT2576	Warwickshire Avon catchment	Location for Woodlands for Water methods 1	Identify location where approach recommended by ""Woodlands for Water"" fund can be applied to reduce flood risk. This involves planting trees to increase interception of rainfall and reduce run off rates. It usually also involves strategically placing ""leaky dams"" or other channel obstructions which slow run off from the headwaters of catchments to the more populated areas downstream.	N	N	Y	N	N	N	N	N	N	N	Y	M31 – Natural flood management / runoff & catchment management	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	
ACT2577	Warwickshire Avon catchment	Apply mitigation to heavily modified water bodies.	WFD objective to de-culvert, endeavour to undertake riparian habitat enhancement, etc	N	N	Y	N	N	N	N	N	N	N	Y	M24 – Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	
ACT2578	Warwickshire Avon catchment	Work with others	The EA will work with others to continue to improve incident management and the advice and support that is provided on adapting to a changing climate. The EA will take an integrated approach to work in catchments and we engage early with strategic spatial planning and Local Enterprise Partnerships (LEPs), or equivalent, to help enable sustainable growth and avoid delays to development. Work with local authorities, coastal groups and others to ensure that strategic plans take account of evidence and knowledge. Work with other organisations to help them make the best use of risk information, including the insurance industry. Continue to implement and enhance the partnership funding approach with other risk management authorities and beneficiaries to increase and broaden the funding for investment in flood risk management.	N	N	Y	N	N	N	N	N	N	N	Y	M44 – Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	
ACT2579	Warwickshire Avon catchment	Economic benefits of investment	Through our investment in flood risk management infrastructure we not only reduce the risks of flooding and the costs associated with flooding incidents, but also support growth by helping to create new jobs and by bringing confidence to areas previously affected by floods. Ensure that investments in flood and coastal risk management provide environmental benefits wherever	N	N	Y	N	N	N	N	N	N	N	Y	M44 – Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Multi agency flood plans	

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ACT3201	Charlton	Community engagement - Charlton	Charlton community engagement. Work with the community groups and the Parish Council to promote land management to reduce flood risk and encourage taking action to prepare for flooding within the village.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 – Public awareness & preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP	
ACT3206	Badsey Brook	Rapid response catchment awareness - Badsey Brook	Rapid response catchment awareness in Badsey Brook. Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 – Public awareness & preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP	
ACT3232	Himbleton	Property Level Protection - Himbleton, Bow Brook	Work with the community at Himbleton to promote property level protection measures to reduce flood risk. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3234	Vale of Evesham	Integrated project - Vale of Evesham	Carry out integrated project to address Water Framework Directive delivery, habitat and flood risk management issues across the Avon catchment. (Worcs LEP Vale of Evesham)	N	N	Y	N	N	N	N	N	N	Y	Y		M35 – Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3235	Evesham	Property Level Protection - Evesham	Work with the community at Evesham to promote property level protection measures to reduce flood risk from River Avon. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3236	Badsey Brook	Flood Alleviation Scheme - Badsey Brook	Implement technically feasible, environmentally acceptable and economically justified flood alleviation scheme on the Badsey Brook to reduce risk of flooding to properties at Broadway, Childswickham and Murcot (subject to funding).	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 – Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	
ACT3237	Wickhamford	Flood Alleviation Scheme feasibility - Wickhamford	Work with the community to assess the technical, environmental, and economic feasibility of using public money to construct a flood alleviation scheme at Wickhamford (Badsey Brook). Implement scheme with contribution from public funding if meets criteria. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 – Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3238	Pershore	Property Level Protection - Pershore	Work with the community to promote property level protection measures at Pershore to reduce flood risk. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3290	Tewkesbury	Extension of Flood Warning Service - Tewkesbury	Maintain community warnings to reduce risk to isolated communities. Undertake study to assess feasibility of extension of Flood Warning service to warn for flooding from Tirlle, Carrant and Swilgate. Undertake study on feasibility of pluvial warnings.	Y	N	N	N	N	N	N	N	N	Y	N	N	M41 – Flood forecasting & warning	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3293	Cotswolds	Work with Cotswolds AONB for appropriate land use	Work with the Cotswolds AONB to encourage appropriate land use change	N	N	Y	N	N	N	N	N	N	Y	Y	M31 – Natural flood management / runoff & catchment management	2039 +	Moderate	Environment Agency	Statutory FRMP	CFMP	
ACT3294	North of Gloucester	Investigate improving flood flow routes - Glos	Investigate the potential of wetland creation around the north of Gloucester (including Innsworth Meadow SSSI).	Y	N	N	N	N	N	N	N	N	Y	N	M31 – Natural flood management / runoff & catchment management	2015 - 2021	Low	Environment Agency	Statutory FRMP	CFMP	
ACT3302	Catchment wide	Review maintenance operations	Review maintenance operations. Work with land owners and land managers to identify opportunities for reducing the intensity of our maintenance operations. Review maintenance operations in line with the findings of Defra's R and D Technical Report FD1920/TR.	Y	N	N	N	N	N	N	N	N	N	Y	M35 – Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP	
ACT3306	Tewkesbury	Improve conveyance through Tewkesbury	Investigate opportunities for improving conveyance through Tewkesbury. The location of Tewkesbury makes it difficult technically to have protection in the form of raised defences. Dredging is not an option for the Severn or Avon . There may be some short term merit in desilting on the Tirlle, Carrant and Swilgate at bridges and culverts; however, this is not a long term solution for flood risk management. Improvement of road structures (bridges - A38 Swilgate, B4080 Carrant Brook, Road Bridge at Tredington). Either a Highways Authority action or partnership opportunities. Bottlenecks particularly in	Y	N	N	N	N	N	N	N	N	N	Y	M35 – Other protection	2039 +	Moderate	Environment Agency	Statutory FRMP	CFMP	

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place														Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT5682	Anglian RBD, Thames RBD, Humber RBD, Severn RBD.	Resilience	Anglian Water will continue a programme of flood resilience to their most susceptible water and water recycling assets.	N	N	N	N	N	N	Y	N	N	Y	N	N	M35 – Other protection	2015 - 2021	High	Anglian Water	Non statutory FRMP	Water Company AMP
ACT5683	Anglian RBD, Thames RBD, Humber RBD, Severn RBD.	Keep it Clear	Anglian Water will continue to raise awareness of flooding caused by fats, oils, grease and unflushable materials such as wet wipes and nappies, through their Keep it Clear campaign. This awareness campaign will help to reduce the number of preventable sewer flooding incidents.	N	N	N	N	N	N	N	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Anglian Water	Non statutory FRMP	Water Company AMP
ACT7145	Warwickshire	Warwickshire County Council Local Flood Risk Management Strategy Actions	Local flood risk management actions for Warwickshire will be delivered as set out in the Local Flood Risk Management Strategy.	N	N	N	N	N	N	Y	N	N	Y	N	N	M34 – Surface water management	2015 - 2021	High	Warwickshire County	Non statutory FRMP	Local FRM Strategy
ACT7149 #	Worcestershire	Worcestershire Local Flood Risk Management Strategy Actions	Local flood risk management actions for Worcestershire, which includes part of the West Midlands Flood Risk Area will be delivered as set out in the Local Flood Risk Management Strategy	N	N	N	N	N	N	Y	N	N	N	Y	N	M34 – Surface water management	2015 - 2021	High	Worcestershire County	Non statutory FRMP	Local FRM Strategy
ACT7166	Severn catchments	Reduction of sewer flooding	Severn Trent Water will continue to invest in the reduction of flood risk to properties at known risk of sewer flooding	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7167	Catchments in Severn RBD	Partnership funding opportunities	Severn Trent Water will invest in partnership funding opportunities, in conjunction with other beneficiaries and risk management authorities, where their customers directly benefit from any investment made.	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 – Other prevention	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP

Measures in the Warwickshire Avon catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT7168	Severn RBD catchments	Contribute to the development of surface water management plans.	Severn Trent Water will continue to contribute to the development of surface water management plans. This will include the sharing of data, delivery of modelling expertise and outputs from sewer modelling.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 – Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7169	Severn RBD catchments	Development of sewerage management plans	Severn Trent Water will continue to develop sewerage management plans for their high risk catchments throughout AMP6, which will help to inform future investment.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 – Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7170	Catchments in Severn RBD	Maintenance of sewers	Severn Trent Water will continue to carry out risk based maintenance on their sewers to ensure that service is maintained to customers.	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7171	Catchments in Severn RBD	Raise awareness to help reduce preventable sewer flooding incidents	Severn Trent Water will continue to raise awareness of flooding caused by fats, oils, grease and unflushable materials such as wet wipes and nappies. This will help to reduce the number of preventable sewer flooding incidents.	N	N	N	N	N	N	N	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP

Indicates measure that only applies within the West Midlands Flood Risk Area. The West Midlands FRA is located within both the Severn and Humber River Basin Districts, but is being reported under the Humber River Basin District in which it predominantly sits. The HRA and SEA requirements have been included in the reviews carried out for the Humber FRMP.

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type		
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment	Economic
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3203	Saintbridge	Community engagement - Saintbridge	Saintbridge community engagement. Work with Gloucester City Council to encourage taking action to prepare for flooding within the community.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3205	Severn Vale	Community engagement - Gloucester to Tewkesbury	Gloucester to Tewkesbury community engagement. Work with the communities within Gloucester and along the River Severn between Tewkesbury and Gloucester to encourage taking action to prepare for flooding. This includes giving advice and support to those progressing their own private schemes.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT3207	Severn Estuary	Community engagement - Severn Estuary	Severn Estuary community engagement. Work with communities along the Severn Estuary to encourage taking action to prepare for flooding.	N	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	
ACT3209	Kempsey	Community flood plan - Kempsey	Kempsey community flood plan. Work with the community to produce a community flood plan.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP	
ACT3210	Slad Brook	Rapid response catchment awareness - Slad Brook	Rapid response catchment awareness in Slad Brook. Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP	
ACT3211	Charlton Kings	Rapid response catchment awareness - Charlton Kings	Rapid response catchment awareness in Charlton Kings. Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Environment Agency	statutory FRMP	FRMP	

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3217	Alney Island	Flood defence Improvements - Alney Island	Work with the community to assess the technical, environmental, and economic feasibility of using public money to raise the standard of protection of the Alney Island defences. Implement scheme with contribution from public funding if meets criteria and funding is available. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3218	Ruspidge	Rapid response catchment awareness - Ruspidge	Rapid response catchment awareness in Ruspidge. Work with communities and LRF partners to encourage community to prepare for flooding by setting a trigger and creating a plan so they can respond to flooding.	N	N	Y	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Very High	Environment Agency	statutory FRMP	FRMP
ACT3219	Westbury-on-Severn	Flood defence improvements - Westbury-on-Severn	Work with the community to assess the technical, environmental, and economic feasibility of using public money to increase the standard of protection of the Westbury on Severn estuary defences within the next 10 years. Implement scheme with contribution from public funding if meets criteria. Seek partnership funding contributions as necessary.	N	N	N	N	N	N	N	N	N	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3220	Severn Stoke	Flood Alleviation Scheme - Severn Stoke	Work with the community to assess the technical, environmental, and economic feasibility of using public money to construct a flood alleviation scheme at Severn Stoke. Implement scheme with contribution from public funding if meets criteria. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3221	Upper Framilode	Flood defence improvements - Upper Framilode	Work with the community to assess the technical, environmental, and economic feasibility of using public money to increase the standard of protection of the Upper Framilode estuary defences within the next 10 years. Implement scheme with contribution from public funding if meets criteria. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3271	Cotswolds	Holding more water in upper catchment - Cotswolds	Implement ways of holding more water in the upper catchment and demonstrate the feasibility and funding of these methods. Methods considered should include installation of SuDS and retaining existing capacity of undersized culverts in upper catchments where appropriate	N	N	Y	N	N	N	N	N	N	N	Y	N	M32 - Water Flow regulation	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3272	Cotswolds	Review maintenance regimes - Cotswolds	Review maintenance regimes to hold more water upstream	N	N	Y	N	N	N	N	N	N	N	Y	N	M35 - Other protection	2039 +	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3273	Cotswolds	Work with NE to increase storage - Cotswolds	Work with Natural England to seek opportunities to increase storage in the upper catchment through detention basins that benefit the environment, encouraging activities that may have potential to reduce runoff rates to downstream areas, whilst contributing wider benefits (biodiversity, soil conservation and water quality improvements)	N	N	Y	N	N	N	N	N	N	N	Y	Y	M31 - Natural flood management / runoff and catchment management	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3275	Catchment wide	Vision for redevelopment of river channel	Agree a vision for the redevelopment of the river channel to inform planners, developers and riparian owners. The Strategic Flood Risk Assessment is an agreed approach between the Local Planning Authority and Environment Agency for allocating the location of future development and should be a living document.	N	N	Y	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP
ACT3278	Gloucester	Continue maintenance - Gloucester Streams	Continue existing programme of maintenance in the Gloucester Streams. Efficiencies and improvements should be sought to maintain existing flood risk into the future.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	Low	Environment Agency	Statutory FRMP	CFMP
ACT3284	Severn Vale	Ensure planning authorities aware of CFMP policy 3 - Severn Vale	Ensure planning authorities are aware of the implications of the adoption of CFMP policy 3 in this area. Policy 3 is: Continue with existing or alternative actions to manage flood risk at the current level (accepting that flood risk will increase overtime from this baseline).	N	N	Y	N	N	N	N	N	N	N	Y		M21 - Avoidance	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3285	Deerhurst	Continue maintenance and warning - Deerhurst	Continue with defence and channel maintenance and flood warning at Deerhurst	Y	N	N	N	N	N	N	N	N	Y	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3288	Severn Vale	Continue maintenance and warning - Severn Vale	Continue with channel maintenance and flood warning in Kempsey, Severn Stoke, Hanley Castle, Upton on Severn, Bushley, Tewkesbury, Chaceley, Apperley, Tirley, The Haw, Leigh, Wainlode, Ashleworth, Longridge	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3291	Severn River Basin District, Catchment wide	Maintain current conveyance	Maintain current conveyance by keeping channels clear and free from obstructions. Reflect importance of WFD by retaining woody debris, gravel riffles etc in watercourse	Y	N	N	N	N	N	N	N	N	Y	Y	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3293	Cotswolds	Work with Cotswolds AONB for appropriate land use	Work with the Cotswolds AONB to encourage appropriate land use change	N	N	Y	N	N	N	N	N	N	N	Y	Y	M31 - Natural flood management / runoff and catchment management	2039 +	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3299	Stroud	Restoration project - Stroud Water Canal	Maximise opportunities to reduce flood risk by working with the Stroud Water Canal restoration project.	N	N	Y	N	N	N	N	N	N	Y	Y	Y	M61 - Other	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3300	Frome	Development within Frome catchment	Ongoing work with regeneration and development within Frome catchment. Maximise opportunities to advise and support land use allocation / development control in the Frome Catchment	N	N	Y	N	N	N	N	N	N	Y	Y	Y	M21 - Avoidance	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3302	Catchment wide	Review maintenance operations	Review maintenance operations. Work with land owners and land managers to identify opportunities for reducing the intensity of publicly funded maintenance operations. Review maintenance operations in line with the findings of Defra's R and D Technical Report FD1920/TR.	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3304	Catchment wide	Review effectiveness of raised defences	Review the effectiveness of all raised defences (including use of temporary defences, where applicable). Determine the impact of removal / non-maintenance of defences on flooding in this Policy Unit and elsewhere. High value agricultural assets should be included in the economic assessment of the ongoing viability of the defences. Undertake a study to determine the impact of removal / non-replacement of defences. Work with landowners that maintain private defences to ensure that our management aims are complementary	Y	N	N	N	N	N	N	N	N	N	Y	Y		M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3308	Chelt basin	Impacts of reduction of defences in Chelt basin	Undertake study to determine the impacts of removal or reduction of flood defences in the Chelt basin on flood risk downstream. Depending on the outcome of the study, longer-term actions may include: Reduce maintenance of agricultural defences (non-replacement after they have reached their design life). Work with local land owners to determine future management of agricultural defences.	Y	N	N	N	N	N	N	N	N	Y	N	Y		M35 - Other protection	2015 - 2021	Low	Environment Agency	Statutory FRMP	CFMP
ACT3313	Severn Vale	Shoreline Mgt Plan included in strategic planning	The Shoreline Management Plan is taken into account in Strategic Flood Risk Assessments for council development / land use plans	Y	N	N	N	N	N	N	N	N	Y	N	Y		M21 - Avoidance	2015 - 2021	High	Environment Agency	Statutory FRMP	SMP
ACT3314	Severn Vale	Environmental consideration for defences	Ensure Environmental Issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. To prevent disturbance to birds	Y	N	N	N	N	N	N	N	N	N	Y	N		M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	SMP
ACT3316	Severn Estuary	Encourage resilience of utilities - Severn Estuary	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets flooding from Severn Estuary. Develop a flood resilience and adaptation plan as appropriate.	Y	N	N	N	N	N	N	N	N	Y	N	N		M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	SMP

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3318	Severn Estuary	Encourage resilience of railway line - Severn Estuary	Encourage Network Rail to undertake an assessment of the current and future risks and resilience to flooding of the railway line on Severn Estuary. Develop a flood resilience and adaptation plan as appropriate	Y	N	N	N	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	SMP
ACT3319	Severn Estuary	Environmental consideration new defences - Severn Estuary	Ensure environmental Issues are taken into account in the design/construction of new defences on Severn Estuary	Y	N	N	N	N	N	N	N	N	N	Y	N	M61 - Other	2015 - 2021	High	Environment Agency	Statutory FRMP	SMP
ACT3320	Severn Estuary	Engage with English Heritage on defences - Severn Estuary	Engage with English Heritage/County Archaeologist on replacement of defences/flood risk management on Severn Estuary	Y	N	N	N	N	N	N	N	N	N	Y	N	M23 - Reduction	2015 - 2021	High	Environment Agency	Statutory FRMP	SMP
ACT3321	Severn Estuary	Maintain & sustain defences - Minsterworth	Maintain and then sustain the current standard of protection by raising the defence at Minsterworth in response to climate change. Subject to availability of funding.	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3322	Severn Estuary	Maintenance - Minsterworth Ham	Carry out maintenance at Minsterworth Ham as long as the economic benefits outweigh the costs of doing the work. Subject to availability of funding.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3323	Severn Estuary	Alternative flood risk options - Minsterworth	"If a point is reached when EA is unable to continue to maintain the Minsterworth Ham defence and/or a tipping point reached in terms of increased flood frequency, options include: Landowners taking on responsibility for the maintenance of defences; Do nothing and allow standard of protection to reduce; Explore a voluntary managed realignment scheme; Adapt properties and farming activities to become more resilient to flooding. Continue to discuss potential options for future flood	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
			risk management on Minsterworth Ham with landowners."																			
ACT3324	Severn Estuary	Maintain & sustain defences - Newnham & Westbury	At Newnham and Westbury the EA intends to continue to maintain and repair defences (as funds allow) and to then sustain the current standard of protection by raising the defence in response to climate change (as funds allow).	Y	N	N	N	N	N	N	N	N	N	Y		M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy	
ACT3325	Severn Estuary	Flood Risk management - Westbury Court Gardens	The National Trust is currently considering flood risk management options for Westbury Court Gardens. The EA will work with the NT to secure flood risk and environmental benefits for the area.	N	N	Y	N	N	N	N	N	N	Y	Y		M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	Local FRM Strategy	
ACT3326	Severn Estuary	Maintain & sustain defences - Cleeve & Rodley	"Continue to maintain the embankments between Cleeve and Rodley and at the Noards (as funds allow) and to then sustain the current standard of protection if sea level rises over 0.3m (as funds allow). Raising the height of the defences on their existing line or realigning them inland are both options that could be considered with landowners at that time. Earlier managed realignment of defences may be an option should landowners wish to consider this."	Y	N	N	N	N	N	N	N	N	Y	N		M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy	
ACT3327	Severn Estuary	Prolong life of defence with landowners - Awre	EA to work with landowners at Awre to prolong the life of the existing defences through a 'make-do' option where each carries out agreed maintenance activities to ensure the necessary level and frequency of maintenance continues. EA activities are subject to funding. This option recognises that tide, storm or overtopping may result in the flood defences not functioning effectively and land flooding. It does not include any non-routine repair or refurbishment that may be needed in the future. If a tipping point is reached in terms of increased flood frequency, options include: Landowners taking on responsibility for the	Y	N	N	N	N	N	N	N	N	Y			M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	Local FRM Strategy	

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type		
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment	Economic
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3332	Severn Estuary	Work with Elmore to optimise maintenance funding	The EA, landowners, community in Elmore and other organisations will seek to explore further what could be achieved by working in partnership to maximise maintenance with the funding that is available each year.	Y	N	N	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy	
ACT3333	Severn Estuary	Work with Elmore community to regards erosion	The EA will seek to work with the community to address concerns about erosion of the river bank and damage to flood defences from stock and vehicle traffic.	Y	N	N	N	N	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy	
ACT3334	Severn Estuary	Maintain defence - Longney	The EA intends to continue to maintain the existing defences well into the Moderate to long term future, depending on actual sea level rise experienced (as funds allow).	Y	N	N	N	N	N	N	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy		
ACT3335	Severn Estuary	Work with Longney to optimise maintenance funding	The EA, landowners, community in Longney and other organisations will seek to explore further what could be achieved by working in partnership to maximise maintenance with the funding that is available each year.	Y	N	N	N	N	N	N	N	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy		
ACT3336	Severn Estuary	Work with Longney community to regards erosion	The EA will seek to work with the community and landowners to address concerns about erosion at Longney Crib.	Y	N	N	N	N	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy	
ACT3337	Severn Estuary	Maintain and sustain defences - Epney/Fretherne	The EA intends to maintain and then raise the defences in phases to sustain the current standard of protection in response to climate change (as funds allow). The aim is to raise defences before flood risk becomes greater than a 1 in 75 chance in any year.	Y	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy		
ACT3338	Severn Estuary	Maintain mechanisms associated with outfalls - Epney/Fretherne	The EA intends to continue to maintain the mechanisms associated with the outfalls to ensure the successful discharge of surface water.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy	

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3339	Severn Estuary	Improve understanding of processes - Severn Est	The EA is working to improve understanding of the fluvial and coastal processes that influence the upper estuary into the future. This may include extending the regional coastal monitoring programme to take in the upper estuary. We are working with the local community to incorporate local monitoring.	Y	N	N	N	N	N	N	N	N	Y	Y	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3340	Severn Estuary	Monitor sea levels between Sharpness and Gloucester	Work with the Proudman Oceanographic laboratory, who provide the national tidal and sea level monitoring facility, to incorporate data from existing tidal gauges between Sharpness and Gloucester into long term monitoring of sea level rise.	Y	N	N	N	N	N	N	N	N	Y	N	N	M44 - Other preparedness	2039 +	Moderate	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3341	Severn Estuary	Maintain current defence - Arlingham defence	The EA intends to continue maintenance of the existing defences well into the Moderate to long term future (as funds allow). With routine maintenance, the existing flood defences that protect Arlingham are currently forecast to remain functional until at least 2060.	Y	N	N	N	N	N	N	N	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3342	Severn Estuary	Work with Arlingham to optimise maintenance	The EA, landowners, community in Arlingham and other organisations will seek to explore further what could be achieved by working in partnership to maximise maintenance with the funding that is available each year.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3343	Severn Estuary	Continued maintenance of defence - Frampton	The earth embankments at Slimbridge and Saul Warth are in good condition and should provide a high standard of protection into the long term. The EA intend to carry out maintenance as needed on the embankment (as funds allow) to ensure continued protection to properties at Frampton on Severn.	Y	N	N	N	N	N	N	N	N	N	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3344	Severn Estuary	Continued inspection of Gloucester/Sharpness Canal	The EA and the Canal and River Trust (CRT) intend to continue to regularly inspect the length of canal that acts as a formal tidal flood defence. If any issues are identified that may result in increased flood risk to Frampton on Severn, the EA and CRT will work together to address the concern. Inspection reports will be made available to Frampton on Severn Parish Council.	Y	N	N	N	N	N	N	N	N	Y	N	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3345	Severn Estuary	Monitoring of impact of more frequent inundation on integrity of canal bank	The potentially more frequent inundation of the inner wath land will be monitored to ensure it does not impact on the integrity of the western canal bank or the discharge of surface water from Frampton on Severn.	Y	N	N	N	N	N	N	N	N	Y	N	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT3346	Slimbridge	Maintain defences - Slimbridge	"The EA intends to continue to carry out maintenance as needed on the embankment to protect properties at Slimbridge. Managed realignment of the defences on the estuary side of the canal may be an option should landowners wish to consider this."	Y	N	N	N	N	N	N	N	N	N	Y	N	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	Local FRM Strategy
ACT7166	Severn catchments	Reduction of sewer flooding	Severn Trent Water will continue to invest in the reduction of flood risk to properties at known risk of sewer flooding	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7167	Catchments in Severn RBD	Partnership funding opportunities	Severn Trent Water will invest in partnership funding opportunities, in conjunction with other beneficiaries and risk management authorities, where their customers directly benefit from any investment made.	N	N	N	N	N	N	Y	N	Y	Y	N	N	M24 - Other prevention	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7168	Severn RBD catchments	Contribute to the development of surface water management plans.	Severn Trent Water will continue to contribute to the development of surface water management plans. This will include the sharing of data, delivery of modelling expertise and outputs from sewer modelling.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP
ACT7169	Severn RBD catchments	Development of sewerage management plans	Severn Trent Water will continue to develop sewerage management plans for their high risk catchments throughout AMP6, which will help to inform future investment.	N	N	N	N	N	N	Y	N	Y	N	N	Y	M44 - Other preparedness	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP

Measures in the Severn Vale catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type		
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment	Economic
	Community / Place																Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT7170	Catchments in Severn RBD	Maintenance of sewers	Severn Trent Water will continue to carry out risk based maintenance on their sewers to ensure that service is maintained to customers.	N	N	N	N	N	N	N	N	Y	Y	N	N	M23 - Reduction	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7171	Catchments in Severn RBD	Raise awareness to help reduce preventable sewer flooding incidents	Severn Trent Water will continue to raise awareness of flooding caused by fats, oils, grease and unflushable materials such as wet wipes and nappies. This will help to reduce the number of preventable sewer flooding incidents.	N	N	N	N	N	N	N	N	Y	Y	N	N	M21 - Avoidance	2015 - 2021	High	Severn Trent Water	Non statutory FRMP	Water Company AMP	
ACT7175	River Severn from Tewkesbury to Gloucester	Reducing flood risk and assisting with resilience and recovery	Work with others to encourage a more strategic approach to reducing flood risk and improving resilience and recovery in the area River Severn from Tewkesbury to Gloucester. This includes the identification of other funding sources which can be used, and understanding the potential for, and timing of, future developments in the area to help plan for and maximise the opportunities available.	Y	N	N	N	N	N	N	N	Y	N	Y	M24 - Other prevention	2015 - 2021	High	Environment Agency	statutory FRMP	Local FRM Strategy		

Measures in the English Wye catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3202	Bodenham	Community engagement - Bodenham	Bodenham community engagement. Work with the community group to encourage taking action to prepare for flooding and to produce a plan to reduce impact of flooding within the village.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3208	Wye Estuary	Community engagement - Wye Estuary	Wye Estuary community engagement. Work with communities along the Wye Estuary to encourage taking action to prepare for flooding.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3251	Hampton Bishop	Work with others to improve defence - Hampton Bishop	Provide guidance and contribute to the assessment of the impacts and benefits of a landowner-led proposal to raise the existing Hampton Bishop defences to reduce flood risk to properties in the village.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT3252	Ewyas Harold	Measures to reduce flood risk-Ewyas Harold	Work with the community to assess the technical feasibility, environmental acceptability and economic justification of using public money to carry out measures to reduce flood risk at Ewyas Harold. Implement measures with contribution from public funding if meets criteria. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3253	River Wye	Property Level Protection - River Wye	Work with communities along the River Wye estuary to promote property level protection measures to reduce flood risk. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP

Measures in the English Wye catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3254	Bishops Frome	Property Level Protection - Bishops Frome	Work with the community at Bishops Frome to promote property level protection measures to reduce flood risk. Seek funding to carry out property surveys to determine suitable property level protection measures and to implement measures.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M23 - Reduction	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT3255	Leominster	Flood defence improvements - Leominster	Investigate measures to optimise the standard of protection provided by the Leominster Flood Alleviation Scheme (River Lugg). Implement refurbishment or improvement works if necessary and meet technical, environmental and economic criteria for public funding. Seek partnership funding contributions as necessary.	Y	N	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP
ACT3279	Hereford	Continue to support ESG development - Hereford	Continue to support the development of flood risk management schemes such as the Edgar Street Grid project (ESG) which are currently being developed in Hereford.	N	N	Y	N	N	N	N	N	N	Y	N	Y	M21 - Avoidance	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP
ACT3280	Lower Wye	Continue with watercourse maintenance - Lower Wye	Continue with existing level of maintenance of watercourses. Efficiencies and improvements should be sought to maintain existing flood risk into the future.	N	Y	N	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3282	Lower Wye	Develop a Flood Awareness Plan - Lower Wye	Develop a Flood Awareness Plan to encourage people to sign up to and respond to flood warnings as well as self help methods to protect themselves and their properties.	N	N	Y	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	CFMP
ACT3296	Lower Wye	Maintain defence & drainage network - Lower Wye	Maintain existing level of flood defence and drainage network maintenance within Ross-on-Wye, Hay-on-Wye, Monmouth, Leominster and Pembridge where current flood defences exist. Efficiencies and improvements should be sought to maintain existing flood risk to these communities into the future.	N	N	Y	N	N	N	N	N	N	Y	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP

Measures in the English Wye catchment

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion										Category of objective	Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social								Environment
	Community / Place															Prevention, protection, preparedness etc	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate, Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT3297	Hereford	Maintain defence and watercourse - Hereford	Maintain existing level of flood defence and watercourse maintenance within communities where current flood defences exist (raised embankments along the River Wye, downstream of the urban area to Hampton Bishop).	Y	N	N	N	N	N	N	N	N	N	N	Y	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP
ACT6903	Wye & Lugg SAC	Supporting the River Wye & Lugg SAC Restoration Plans	Work with Natural England, Natural Resources Wales and other partners to identify opportunities for floodplain and river restoration within the River Wye and Lugg Special Area of Conservation catchments to meet the objectives of the SAC River Restoration Plans.	Y	N	N	N	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
			working practices e.g. to prevent disturbance to birds																	EH		
ACT1026	Arlingham, between Gloucester and Sharpness	BA/EA/SMP19/SHAR4/11.22 study	Undertake a study into opportunities to remove flood embankments	N	N	N	Y	N	N	N	N	N	Y	N		M33 - Channel, coastal and floodplain works	2015 - 2021	Low	Environment Agency ,Coastal Group , NE, Stroud District Council, IDB, stakeholders	Statutory FRMP	SMP	
ACT1027	Arlingham, between Gloucester and Sharpness	BA/EA/SMP19/SHAR4/11.23 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	Y	N	N		M23 - Reduction	2015 - 2021	Moderate	Environment Agency , Coastal Group , Central Networks, Severn Trent	Statutory FRMP	SMP	
ACT1028	Between Gloucester and Sharpness	BA/EA/SMP19/SHAR5/11.26 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	Y	N	N		M23 - Reduction	2015 - 2021	Moderate	Environment Agency , Coastal Group , Central Networks, Severn Trent	Statutory FRMP	SMP	
ACT1029	Fretherne and Frampton-on-Severn, between Gloucester and Sharpness	BA/EA/SMP19/SHAR6/11.27 environment maintenance	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed	N	N	N	Y	N	N	N	N	N	Y	N		M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Stroud District Council, EH	Statutory FRMP	SMP	

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
			working practices e.g. to prevent disturbance to birds																			
ACT1030	Fretherne and Frampton-on-Severn, between Gloucester and Sharpness	BA/EA/SMP19/SHAR6/11.30 study	Undertake a study into opportunities to remove flood embankments	N	N	N	Y	N	N	N	N	N	Y	N		M33 - Channel, coastal and floodplain works	2015 - 2021	Low	Environment , Coastal Group , NE, Stroud District Council, IDB, stakeholders	Statutory FRMP	SMP	
ACT1031	Fretherne and Frampton-on-Severn, between Gloucester and Sharpness	BA/EA/SMP19/SHAR6/11.31 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	N	Y	N		M23 - Reduction	2015 - 2021	Moderate	Environment Agency , Coastal Group , Central Networks, Severn Trent	Statutory FRMP	SMP	
ACT1032	Slimbridge, between Gloucester and Sharpness	BA/EA/SMP19/SHAR7/11.33 environment maintenance	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	N	N	N	Y	N	N	N	N	N	Y	N		M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Stroud District Council, EH	Statutory FRMP	SMP	
ACT1033	Slimbridge, between Gloucester and Sharpness	BA/EA/SMP19/SHAR7/11.34 environment construction	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	N	N	N	Y	N	N	N	N	N	Y	N		M35 - Other protection	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Stroud District Council, IDB, stakeholders	Statutory FRMP	SMP	

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1034	Slimbridge, between Gloucester and Sharpness	BA/EA/SMP19/SHAR7/11.35 heritage and archaeology	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Stroud District Council, EH	Statutory FRMP	SMP
ACT1035	Slimbridge, between Gloucester and Sharpness	BA/EA/SMP19/SHAR7/11.38 study	Undertake a study into opportunities to remove flood embankments	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Low	Environment Agency , Coastal Group , NE, Stroud District Council, IDB, stakeholders	Statutory FRMP	SMP
ACT1036	Slimbridge, between Gloucester and Sharpness	BA/EA/SMP19/SHAR7/11.39 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency , Coastal Group , Central Networks, Severn Trent	Statutory FRMP	SMP
ACT1037	Purton and Sharpness, between Gloucester and Sharpness	BA/EA/SMP19/SHAR8/11.42 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	Environment Agency , Coastal Group , Central Networks, Severn Trent	Statutory FRMP	SMP
ACT1038	Newton and Berkeley, between Sharpness and	BA/EA/SMP19/SEV1/12.1 environment and maintenance	Ensure environmental issues are taken into account in the management and maintenance of	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Stroud	Statutory FRMP	SMP

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1050	Northwick, between Bristol and Severnside	BA/EA/SMP19/BRIS1/13.5 erosion	Put in place monitoring programme of erosion rates and salt marsh levels/extent	N	N	N	N	Y	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE	Statutory FRMP	SMP	
ACT1051	Severn Beach and Crooksmarsh, between Bristol and Severnside	BA/EA/SMP19/BRIS2/13.6 environment and maintenance	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, South Gloucestershire Council, EH	Statutory FRMP	SMP	
ACT1052	Severn Beach and Crooksmarsh, between Bristol and Severnside	BA/EA/SMP19/BRIS2/13.9 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	Environment Agency , Coastal Group , Western Power Distribution / Central Networks,	Statutory FRMP	SMP	
ACT1053	Severn Beach and Crooksmarsh, between Bristol and Severnside	BA/EA/SMP19/BRIS2/13.10 erosion	Put in place monitoring programme of erosion rates and salt marsh levels/extent	N	N	N	N	Y	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE	Statutory FRMP	SMP	
ACT1054	Avonmouth, between Bristol and Severnside	BA/EA/SMP19/BRIS3/13.13 environment maintenance	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Bristol City Council, Bristol Docks	Statutory FRMP	SMP	

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place															Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from	
ACT1055	Avonmouth, between Bristol and Severnside	BA/EA/SMP19/BRIS3/13.14 heritage and archaeology	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	N	N	N	Y	N	N	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Bristol City Council, EH	Statutory FRMP	SMP
ACT1056	Avonmouth, between Bristol and Severnside	BA/EA/SMP19/BRIS3/13.16 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency , Coastal Group , Western Power Distribution / Central Networks, Wessex Water,	Statutory FRMP	SMP	
ACT1057	Avonmouth, between Bristol and Severnside	BA/EA/SMP19/BRIS3/13.17 erosion	Put in place monitoring programme of erosion rates and salt marsh levels/extent	N	N	N	N	Y	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE	Statutory FRMP	SMP	
ACT1058	Sea Mills, Sneyd Park, and Bristol City Centre, between Bristol and Severnside	BA/EA/SMP19/BRIS4/13.20 environment maintenance	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, Bristol City Council, Bristol Docks, EH	Statutory FRMP	SMP	
ACT1059	Sea Mills, Sneyd Park, and Bristol City Centre, between Bristol and Severnside	BA/EA/SMP19/BRIS4/13.22 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as	N	N	N	Y	N	N	N	N	N	Y	N	N	M23 - Reduction	2015 - 2021	Moderate	Environment Agency , Coastal Group , Western Power Distribution / Central Networks, Wessex Water	Statutory FRMP	SMP	

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1073	Kingston Seymour and Wick St. Lawrence, between Kinston Seymour and Sand Bay	BA/EA/SMP19/KIN1/15.4 research MR options	Undertake research involving stakeholders to identify where (and when) MR could take place within the Policy Unit in the Moderate and longer terms. Study should look at minor, staged and larger, long term MR options	N	N	N	Y	N	N	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Low	Environment Agency , Coastal Group , NE, North Somerset Council, IDB, EH, stakeholders	Statutory FRMP	SMP
ACT1074	Kingston Seymour and Wick St. Lawrence, between Kinston Seymour and Sand Bay	BA/EA/SMP19/KIN1/15.5 CAPE approach to MR	Develop plans to implement the CAPE approach to areas where MR may be undertaken	N	N	N	Y	N	N	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	Low	Environment Agency , Coastal Group , NE, North Somerset Council, IDB, EH, stakeholders	Statutory FRMP	SMP
ACT1075	Kingston Seymour and Wick St. Lawrence, between Kinston Seymour and Sand Bay	BA/EA/SMP19/KIN1/15.7 environment and maintenance	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, North Somerset Council, IDB, EH	Statutory FRMP	SMP
ACT1076	Kingston Seymour and Wick St. Lawrence, between Kinston Seymour and Sand Bay	BA/EA/SMP19/KIN1/15.8 heritage and archaeology	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, North Somerset Council, EH	Statutory FRMP	SMP

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1077	Kingston Seymour and Wick St. Lawrence, between Kinston Seymour and Sand Bay	BA/EA/SMP19/KIN1/15.9 resilience	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	N	N	N	Y	N	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency , Coastal Group , Western Power Distribution, Wessex Water	Statutory FRMP	SMP
ACT1078	Sand Bay and Kewstoke, between Kinston Seymour and Sand Bay	BA/EA/SMP19/KIN3/15.11 environment and maintenance	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	N	N	N	Y	N	N	N	N	N	N	Y	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency , Coastal Group , NE, North Somerset Council, EH	Statutory FRMP	SMP
ACT1079	Sand Bay and Kewstoke, between Kinston Seymour and Sand Bay	BA/EA/SMP19/KIN3/15.14 erosion	Put in place monitoring programme of beach levels, dunes and erosion rates	N	N	N	N	Y	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Low	Environment Agency , Coastal Group , North Somerset Council	Statutory FRMP	SMP
ACT1080	Steep Holm island.	BA/EA/SMP19/HOL2/16.4 erosion	Put in place monitoring programme of erosion rates	N	N	N	N	Y	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	High	Environment Agency , Coastal Group , North Somerset Council	Statutory FRMP	SMP
ACT1095	River Avon, Bath to Bristol	BA/EA/MTP/Bristol/Bath to Bristol	Investigate options to reduce flood risk along River Avon between Bath and Bristol.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2021 - 2027	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT1096	Eastville, Bristol	BA/EA/MTP/Bristol/Eastville FDS	Investigate options for replacing Eastville flood alleviation scheme. Pursue	Y	N	N	N	N	N	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2021 - 2027	High	Environment Agency	Statutory FRMP	FRMP

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
			partnership funding opportunities.																		
ACT1097	Brislington, Bristol	BA/EA/MTP/Bristol/Brislington structure	Carry out a full structural survey of the flood defence scheme at Brislington and review options to repair or replace sheet piles.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1098	Coombend, Radstock, BANES	BA/EA/MTP/Radstock/Coombend	Improvements to the coombend culvert	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	Pre 2015	High	Environment Agency	Statutory FRMP	FRMP
ACT1099	Congresbury tidal defences, North Somerset	BA/EA/MTP/Congresbury Yeo	Improve Congresbury Yeo Tidal Banks	Y	N	N	Y	N	N	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1100	Congresbury Village, North Somerset	BA/EA/MTP/Congresbury FAS	Implement Congresbury FAS (localised bank raising)	Y	N	N	N	N	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP
ACT1101	Wallbridge, Frome, Somerset	BA/EA/MTP/Frome/wallbridge FDS	Frome FAS - investigate options for improvements at Wallbridge	Y	N	N	N	N	N	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1102	Yate/Chipping Sodbury, South Glos	BA/EA/MTP/Yate Chipping Sodbury	To identify and carry out improvements to the standard of protection on the Bristol Frome through Yate and Chipping Sodbury	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1103	Cribbs Causeway, South Glos	BA/EA/MTP/Cribbs Causeway	Implement Section 10 recommendations	N	N	N	N	N	Y	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1104	Tubbs Bottom, South Glos	BA/EA/MTP/Tubbs Bottom	Implement Section 10 recommendations	N	N	N	N	N	Y	N	N	N	N	N	Y	M33 - Channel, coastal and floodplain works	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT1105	Locations throughout the catchment	BA/EA/MTP/Wessex trash screens	Updating 15 trash screens to improve safety	Y	N	N	N	N	N	N	N	N	N	Y	N	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1106	Locations throughout the catchment	BA/EA/MTP/Wessex web cams	Installation of GPRS Webcams to monitor the state of an asset and to provide visual inspections without the need to send resources.	Y	N	N	N	N	N	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1107	Locations throughout the catchment	BA/EA/MTP/Wessex resilience measures	Provide contribution towards individual property resilience	Y	N	N	N	N	N	N	N	N	Y	N	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1108	Locations throughout the catchment	BA/EA/MTP/Wessex PLP	Deliver PLP protection to approximately 100 properties.	N	N	Y	N	N	N	N	N	N	Y	N	N	M44 - Other preparedness	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1109	Bradford on Avon, Wiltshire	BA/EA/MTP/BOA defences	Review existing modelling and assess options for potential scheme	Y	N	N	N	N	N	N	N	N	N	Y	N	M35 - Other protection	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP
ACT1110	Low lying areas around the Severn Estuary	BA/EA/Severn Estuary rural/floodplain	Work with partners to ensure effective management of drainage network in the low-lying area around the Severn Estuary. We maintain the tidal outfalls, the LSIDB manage the fluvial ditch network. Use the NFU Severn Estuary Stakeholder group to convey messages to local landowners regarding their riparian responsibilities.	N	N	Y	Y	N	N	N	N	N	N	N	Y	M31 - Natural flood management / runoff and catchment management	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT976	Bristol, Ashton Vale	BA/EA/Bristol/Ashton Vale FDS	Investigate options to improve discharge from Ashton Vale FD Scheme during tide locking and improve SOP (currently 1 in 50 due to tide locking)	Y	N	N	Y	N	N	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT977	Netham to Twerton, Bristol to Bath	BA/EA/Bristol/Netham to Twerton flood warning	Improve flood warning lead times on the Avon from Twerton to Bristol.	Y	N	N	N	N	N	N	N	N	N	Y	N	N	M41 - Flood forecasting and warning	Pre 2015	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT978	Keynsham, BANES	BA/EA/Bristol/Keynsham engagement	Establish awareness of flood risk, ensure flood warnings sign up, and identify potential for PLP scheme.	Y	N	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT979	Brislington, Bristol	BA/EA/Bristol/Brislington RRC engagement	Raise awareness of Brislington rapid response catchment. Consider improving flood warning service. Identify, promote and help to implement potential PLP scheme.	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT980	Brislington, Bristol	BA/EA/Bristol/Brislington FDS options	Review modelling of Brislington Brook and investigate opportunities to reduce flood risk.	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP	
ACT981	Bath Local Enterprise Zone	BA/EA/Bath/LEA	We will work in partnership with the LEP, BANES and wider groups to carry out improvements through development opportunities in the Local Enterprise Area	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	Very High	Environment Agency	Statutory FRMP	FRMP	
ACT982	Twerton & Pulteney, Bath	BA/EA/Bath/Twerton & Pulteney gates	Determine the long term plan for Twerton & Pulteney gates and investigate the	Y	N	N	N	N	N	N	N	N	Y	Y	Y	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type	
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic							
	Community / Place																Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT987	Chew Magna, BANES	BA/EA/Chew/engagement	Carry out community engagement, work in partnership with B&NES to improve PLP scheme and provide advice to residents to allow them to take ownership of PLP measures	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	Pre 2015	High	Environment Agency	Statutory FRMP	FRMP	
ACT988	Midsomer Norton, BANES	BA/EA/Midsomer/tunnel	Investigate feasibility of improving the Midsomer Norton Flood Relief Tunnel and pursue partnership funding through development opportunities	Y	N	N	N	N	N	N	N	N	Y	N	N	M35 - Other protection	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT989	Wootton Bassett, Wiltshire	BA/EA/Wootton Bassett/reservoir	Pursue partnership funding opportunities to improve or maintain the reservoir and trash screens protecting the railway line	N	N	N	N	N	Y	N	N	N	Y	N	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT990	Dauntsey, Wiltshire	BA/EA/Dauntsey/engagement	Carry out community engagement and help implement a PLP scheme	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT991	Malmesbury, Wiltshire	BA/EA/Malmesbury/FDS options	Improve our knowledge of flooding mechanisms in and around Malmesbury and investigate potential schemes.	Y	N	N	N	N	N	N	N	N	N	Y	N	M24 - Other prevention	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT992	Malmesbury, Wiltshire	BA/EA/Malmesbury/Flood warning	Improve flood warning lead times on the Sherston Avon at Malmesbury	Y	N	N	N	N	N	N	N	N	Y	N	N	M41 - Flood forecasting and warning	Pre 2015	Moderate	Environment Agency	Statutory FRMP	FRMP	
ACT993	Chippenham, Wiltshire	BA/EA/Chippenham/radial gate	Investigate options for replacing radial gate	Y	N	N	N	N	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2021 - 2027	Moderate	Environment Agency	Statutory FRMP	FRMP	

Measures in the Bristol Avon and North Somerset Streams catchment – Environment Agency lead measures only

Measure ID	Place	Measure Name	Measure Details	Source of flood risk or coastal erosion									Category of objective			Category of Measure	Timing	Priority	Measure Owner	Statutory or voluntary measure	Plan type
				Flooding from rivers (main river)	Flooding from Rivers (ordinary watercourses)	Flooding from Rivers (main river plus ordinary watercourses)	Flooding from the Sea	Coastal erosion	Flooding from reservoirs	Surface water flooding	Groundwater flooding	Sewer flooding	Social	Environment	Economic						
	Community / Place															Prevention(M2x) protection (M3x), preparedness (M4x)	FRMP Planning Cycles e.g. 2015 - 2021; 2021 - 2027 etc	Critical, Very High, High, Moderate Low	Action owner (bold), plan owner and support organisations	Statutory or voluntary	Source plan measure originates from
ACT994	Trowbridge, Wiltshire	BA/EA/Trowbridge/climate change	Pursue development opportunities to manage flood risk and address climate change	Y	N	N	N	N	N	N	N	N	N	N	Y	M23 - Reduction	2021 - 2027	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT995	Melksham, Wiltshire	BA/EA/Melksham/floodgate	Investigate options for replacing floodgate	Y	N	N	N	N	N	N	N	N	Y	N	N	M33 - Channel, coastal and floodplain works	2021 - 2027	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT996	Melksham, Wiltshire	BA/EA/Melksham/flood warning	Develop flood warning procedures at Melksham to improve thresholds and lead times.	Y	N	N	N	N	N	N	N	N	Y	N	N	M41 - Flood forecasting and warning	Pre 2015	Low	Environment Agency	Statutory FRMP	FRMP
ACT997	Bradford on Avon, Wiltshire	BA/EA/BOA/engagement	Carry out community engagement and help implement a PLP scheme	Y	N	N	N	N	N	N	N	N	Y	N	N	M43 - Public awareness and preparedness	2015 - 2021	Moderate	Environment Agency	Statutory FRMP	FRMP
ACT998	Bristol City tidal flood zone	BA/EA/Bristol/Tidal flood warning	Develop Tidal flood warning service for Bristol City Centre	N	N	N	Y	N	N	N	N	N	Y	N	Y	M41 - Flood forecasting and warning	2015 - 2021	High	Environment Agency	Statutory FRMP	CFMP
ACT999	Clevedon, North Somerset	BA/EA/Clevedon/Cooks Clyde	Investigate the feasibility of automating Cooks Clyde	N	N	Y	Y	N	N	N	N	N	Y	N	N	M32 - Water Flow regulation	2015 - 2021	High	Environment Agency	Statutory FRMP	FRMP

Annex 2. Sources of objectives and measures for the Severn FRMP

Eastern Valleys Catchment Flood Management Plan
Wye and Usk Catchment Flood Management Plan
Severn Tidal Tributaries Catchment Flood Management Plan
River Severn Catchment Flood Management Plan
Bristol Avon Catchment Flood Management Plan
North & Mid Somerset Catchment Flood Management Plan
Taff & Ely Catchment Flood Management Plan
Fluvial Severn Flood Risk Management Strategy
Severn Estuary Flood Risk Management Strategy
Shoreline Management Plans (2): Anchor Head to Lavernock Point
Bristol City Council Flood Risk Management Strategy
North Somerset Council Flood Risk Management Strategy
Bath and North East Somerset Flood Risk Management Strategy
South Gloucestershire Council Flood Risk Management Strategy

Annex 3. CFMP and SMP policies

Catchment Flood Management Plans

The Catchment Flood Management Plans published by the Environment Agency in 2009 set out the preferred policy approach to managing flood risk from the main rivers in England and Wales through broad areas known as policy units. The policy units and associated policies within the Catchment Flood Management Plans were determined by considering the extent, nature and scale of current and future flood risk across the whole catchment in order to show the broad area where the policy decision should be applied.

The six pre-defined policies that were adopted can be described as:

Policy 1 – No active intervention (including flood warning and maintenance). Continue to monitor and advise

Policy 2 - Reduce existing flood risk management actions (accepting that flood risk will increase over time)

Policy 3 - Continue with existing or alternative actions to manage flood risk at the current level

Policy 4 - Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change)

Policy 5 - Take further action to reduce flood risk

Policy 6 - Take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits, locally or elsewhere in the catchment

It is important to note at this point that these are the current strategic policies for undertaking flood risk management work and will be adopted by this plan. Future review will be included within the overall Flood Risk Regulations cycle of delivery if necessary.

The action plans contained in the CFMPs are now largely complete. Where actions are outstanding and yet to be delivered, they have been brought forward into this FRMP. This Plan now contains all the actions applicable to main river flood risk.

For further information on CFMP's within the RBD as listed in Table 3 please visit the following links:

<https://www.gov.uk/government/collections/catchment-flood-management-plans> (England)

<http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/research/planning/64223.aspx> (Wales)

Shoreline Management Plans

In addition to Catchment Flood Management Plans, Shoreline Management Plans were produced in partnership by Coastal Groups to set the strategic direction for the management of the coast for the next 100 years. Shoreline Management Plans (SMPs) are non-statutory policy documents for coastal defence management planning. They provide a large-scale assessment of the risks associated with coastal evolution and present a policy framework to address these risks to people and the developed, historic and natural environment in a sustainable manner.

The first edition SMPs were created in the late 1990s. The second edition plans (SMP2s) were produced by consultants for Coastal Groups from 2005 onwards.

SMP2s address a 100 year timeframe across 3 epochs being Epoch 1 (short-term) = years 0 to 20, Epoch 2 (medium term) = years 20 to 50 and Epoch 3 (long term) = 50 to 100 for proposed management of the coastline.

One of four policies can be applied per Epoch to each coastal management unit (i.e. defined length of coastline) and these policies are:

No Active Intervention (NAI): where there is no planned investment in coastal defences or operations, regardless of whether or not an artificial defence has existed previously

Hold the Line (HTL): an aspiration to build or maintain artificial defences so that the current position of the shoreline remains

Managed Realignment (MR): by allowing the shoreline to move backwards or forwards naturally, but managing the process to direct it in certain areas

Advance the Line (ATL): by building new defences on the seaward side of the original defences

As the SMP2s were recently completed, they will remain as plans in their own right and where applicable and appropriate, certain sea flooding actions have been brought forward into this Flood Risk Management Plan.

For further information on SMP's within the RBD as listed in Table 3 please visit:

<https://www.gov.uk/government/publications/shoreline-management-plans-smpls>

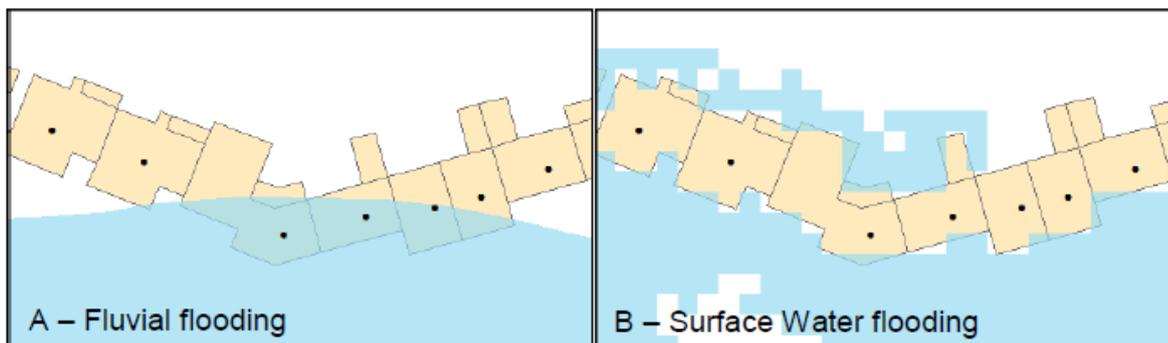
Annex 4. Surface Water Property Counts

The information below describes the methodology of deriving surface water property counts used to generate the surface water statistics in the Severn FRMP.

Why are property counts more complicated for surface water than other types of flooding?

For fluvial and coastal flooding a simple counting methodology is used, looking at the number of property points which fall inside the flood outline. This gives a good approximation of the number of properties in areas affected by flooding as shown in Figure 1, diagram A below.

Figure 1 – Difference in typical flooding outline between fluvial and surface water flooding



Counting the number of properties in areas at risk of surface water flooding is more challenging than for fluvial and coastal flooding. As shown in Figure 1, diagram B above, flooding from surface water is typically much more dispersed and fragmented than a fluvial floodplain, for example in narrow corridors between and around buildings. As a result, a much higher proportion of properties are situated at the edge of an area at risk of flooding, which means that a judgement must be made as to which properties to count. There is a need to think much more carefully about which of these properties at the edge of a flooded area to include as this can lead to considerable variation.

In addition, because of the way buildings are modelled, with raised building footprints, in some cases the surrounding area is shown as flooded when the building itself appears dry or largely dry (diagram B), even though surrounding water levels may be high enough to result in internal flooding. If the properties in diagram B are counted using a method that counts **property points within the flood outline** then no properties would be counted. In some cases only a small percentage of the building perimeter overlaps with the flood outline. However, this may be more of a reflection of the model grid size and the fact that buildings are raised in the model grid.

The adjacent flood depth to the property may be a much better indicator of whether the model indicates a property would flood. On the other hand, if properties are counted using a method that considers **any** mapped flooding intersecting or within a given distance of the **property footprint**, then too many of the more marginal properties might be included in the count.

Counts of properties in areas at risk of flooding are therefore **extremely sensitive** to the method used.

Key variables

The modelling technique that has been used, and the type of catchment that is being modelled, can have a significant impact on how closely the counts from the mapping reflect reality. **Model factors** to consider include

Model type	Direct rainfall models are more likely to result in dispersed patterns of flooding, as rainfall is applied to each individual cell in the model grid.
Model grid resolution	Finer grid resolutions can result in more small pockets or slivers of flooding reaching into narrow roads or gaps between buildings. The width of any area of flooding, and the proximity of that flooding to properties, are directly dependent on the model resolution.
Topography	Steeper topography is more likely to result in fewer, more clearly defined flow routes than flatter topography.
Representation of buildings	Buildings are often raised above the surrounding terrain to cause deflection effects in a model. This means that whilst on the map the building footprint may appear 'dry', surrounding water levels may be high enough to result in internal flooding.
Post processing used	Filtering out low/small areas of flooding is necessary to reduce model 'noise' but also affects the property count as it can make building footprints 'dry'.

Note that in addition, uncertainty in the model is a significant contributing factor when considering the reliability of a property count. In addition to the model factors, a number of assumptions or parameters used to carry out the **property count** may also significantly affect that count:

Building threshold assumptions and flood depth	Typically water is assumed not to cause property flooding until a given building threshold - the damp proof course level, air brick level or door level - is reached. A threshold level of 150mm or 300mm is often assumed - however in reality this varies from property to property, particularly if property protection measures are taken into account
Property identification method	Either the mapped property footprint, or a 'property point', can be considered to represent the property location. For highly dispersed patterns of flooding, where many properties are close to the edge of an area at risk of flooding, the choice of property identification method can make a significant difference to the property count
Buffering	Building footprints, property points or flooded areas are sometimes 'buffered' or extended out by a fixed amount. This is primarily done to help to account for the way that the terrain and the buildings have been represented in the model, but it can also result in selecting many more properties than would be identified without a buffer
Which adjacent water level(s) is used	Modelled water levels often vary around a property. Options include using the highest adjacent water level or an average water level around the property. Sometimes a property may need to adjoin a flooded area along at least a certain proportion of its perimeter, or a specific part of its perimeter, to be counted as flooded.

Pilot studies have shown that, within a realistic range of model assumptions and using typical property counting methods, property counts may easily vary by a factor of more than 10. This shows that property counts are very sensitive to the methods used

Method selected for national property counts

The validation exercise showed that the closest match between the number of properties flooded, and the counted property numbers, was from use of the following parameter values:

Buffer	MasterMap building footprints buffered by 2m to represent the size of a grid square and to reduce the gridded effect of the way that the raised property footprint is represented.
Proportion of property perimeter wetted by a minimum depth of water	50% of the external portion of the buffered property perimeter to be wet to the given minimum depth - balances the desire to include all affected properties with the need to recognise that many borderline properties will not be affected.
Minimum depth of water	Minimum modelled depth of 200mm - a depth that is broadly between the average airbrick height and average door threshold height.

The validation showed that this would be the best combination to give an answer to the question '**how many properties are at risk from flooding?**'

The method was then varied to provide a response to the question '**how many properties lie in areas at risk of flooding from surface water?**' This was done by counting all properties where at least 50% of the **external perimeter of that property (buffered by 2m)**, is in contact with any part of the mapped flood extent, regardless of depth. This enables the counts to be broadly compared with national counts of properties in areas at risk of flooding from rivers and the sea.

Therefore the parameters that were used for externally published national counts were as follows:

Buffer	Mastermap building footprints buffered by 2m to represent the size of a grid square and to reduce the gridded effect of the way that the raised property footprint is represented.
Proportion of property perimeter wetted by a minimum depth of water	50% of the external portion of the buffered property perimeter to be wet to the given minimum depth - balances the desire to include all affected properties with the need to recognise that many borderline properties will not be affected.
Minimum depth of water	No minimum depth threshold applied.

We believe that both of these figures are considerably more robust than previous estimates.

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