

London Borough of Havering Action Plan for Local Flood Risk Management Strategy and Surface Water Management Plan, 2025

The actions in this plan are subject to available funding and resourcing and this document should be read alongside the LFRMS and SWMP documents.

This Action plan includes information on measures to implement the priorities of the London Borough of Havering to manage local flood risk.

The Action Plan includes measures from the Surface Water Management Plan (SWMP) and measures from the Local Flood Risk Management Strategy (LFRMS). Together these form the LFRMS Action Plan. The Action Plan will be monitored annually and reviewed alongside the review of the LFRMS.

The Action Plan is broken into two tabs: one for specific measures in Critical Drainage Areas (CDA) and one for boroughwide measures. Table 1 below clarifies the columns in those tabs. The LFRMS aims and objectives are coded as per Table 2 below and reference to this code is included in column K of the boroughwide tab.

Table 3 below shows the priority ranking of the measures decided through the multicriteria analysis and the cost benefit/feasibility assessment explained in the SWMP. This is shown in column E of the CDA measures table.



Table 1: Measures information

Column	Description
Measures and description	The name of the measure and provides details of what the measure is.
General location	What CDA it is in or if it is boroughwide.
Priority ranking	The ranking of CDA specific measures which ranges from very low to very high.
Cost/funding	What funding could be available to implement the measure and the average cost of the measures.
Estimated benefit	The 'per property' and 'total' benefit from the cost benefit analysis.
Typical duration	The duration of time needed to implement the measure (short, medium or long-term and an idea of the implementation time). The implementation time will vary depending on resources, internal and external funding and priorities. Ongoing measures are those that are already being implemented.
Responsibility	The lead LBH team and primary support for implementing the measure.
Stakeholders	Who will/could be involved and support the measure implementation.
Review and implementation (KPIs)	The Key Performance Indicators (KPIs) against which the measure should be monitored.
Origin of the measure	Explains where the measure came from: new measure, guidance or other plans.

Table 2: LFRMS measures codes

LFRMS Aims	Code	Objective
Supporting communities to be more flood resilient	A1	<ul style="list-style-type: none"> -To increase awareness of flood risk in the Borough with internal and external stakeholders and members of the public. -To work with Local Resilience Forum partners, businesses and residents to improve our preparedness, resilience, and response to flood events. -To take a risk-based and affordable approach to managing flood risk across the Borough.
Working with others to reduce flood risk	A2	<ul style="list-style-type: none"> -To work together with internal and external stakeholders to manage flooding from all sources in the Borough. -To increase understanding internally and externally of the Lead Local Flood Authority role. -To work with internal and external stakeholders to take a consistent and prioritised approach to manage drainage and flood risk assets in the Borough, with an emphasis to maintenance of existing drainage infrastructure, including watercourses.
Making places flood resilient	A3	<ul style="list-style-type: none"> -To deliver a prioritised programme of works to alleviate flooding, including natural flood management measures. -To embed actions to reduce flood risk into our approach to manage the highways network. -To integrate policies and guidance to reduce flood risk through new development into our approach as a Local Planning Authority.

Table 3: Measure priority ranking

Priority Ranking	
0	Very Low
1	Low
2	
3	Medium
4	
5	High
6	
7	Very High

The CDA measures were prioritised based on the Multi Criteria Analysis as explained in Appendix D of the SWMP. The priority ranking shows the degree of urgency to implement CDA measures. However, the implementation on the ground of these measures depends on resources available (officer time, skills & knowledge, budget and funding availability, partnership working, etc). This could vary over time and depends, not only on the LLFA resources, but on the overall Council resources.

Version no.	Prepared	Checked	Reviewed	Approved	Issue date	Issue status
1	Katie Allsopp	Patri Cuervo	Ruth Burnham	Hannah Burgess	16/07/2024	Draft for comments
2	Katie Allsopp	Patri Cuervo	Ruth Burnham	Hannah Burgess	23/08/2024	Final for Public Consultation
3	Katie Allsopp	Ruth Burnham	Patri Cuervo	Hannah Burgess	08/04/2025	Final for Publication
4	Katie Allsopp	Patri Cuervo	Hannah Burgess	Hannah Burgess	18/06/2025	Updated final for publication



ID	Measure	Description	Location	Priority Ranking	Cost/Funding			Estimated Benefit		Typical duration	Responsibility		Other Stakeholders	LFRMS Aims	Review / monitoring (KPIs)	Origin of the measure													
					Estimated Capital Cost	Estimated Other Cost	Potential Funding Source	Total	Average per Property		Lead Organisation	Primary Support																	
1	Infiltration (and evaporation) for managing 'everyday rain' - very small to small amount of rain	An engineering structure to collect rainwater from impermeable services e.g. rain gardens.	CDA 005 Ardleigh Green East	Low	Construction of surface SuDS features in existing: Soft landscape £20-£50/m2 Hard landscapes £50-£100/m2	Feasibility study to understand best areas to implement: £10,000-15,000 depending on if carried out in house Design (scale dependent): £3,000-£20,000	Local Authority e.g. Capital funding (Parks/Highways/ LLFA) Section 106 Agreements and community Infrastructure Levy. Greater London Authority: New Deal programmes ('Greener City' 'Grow Back Greener' and 'Green and Resilient Spaces') Thames Water AMP8 SWMP programme Local Wildlife and River Trusts Central Government (NFM) TRFCC: PROSPECT programme, NFM funding	£ 13,773,150	£ 299,416	Long (3 - 15 years)	London Borough of Havering	LLFA	Land owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance													
			CDA 014 River Rom and Beam River	Medium																									
			CDA 015 Havering Park	Low																									
			CDA 016 Rise Park West	Low																									
			CDA 017 Rise Park	High																									
			CDA 018 Cranham	Medium																									
			CDA 023 Elm Park	Low																									
			CDA 025 Gallows Corner	Low																									
			CDA 026 Harold Hill North	Medium																									
			CDA 034 Thames	Medium																									
			CDA 036 Ingrebourne	High																									
			CDA 037 River Ravensbourne	Medium																									
			CDA 038 Heath Park North	Low																									
			CDA 039 Heath Park South	Medium																									
CDA 040 Harold Hill South	Medium																												
2	Storage for managing 'extreme rainfall' - higher volume of water	Designed to collect, delay and convey rainfall using green infrastructure techniques. This is generally above ground management e.g. swales and wet ponds.	CDA 005 Ardleigh Green East	Low	Construction of surface SuDS features in existing: Soft landscape £20-£50/m2 Hard landscapes £50-£100/m2	Design (scale dependent): £3,000-£20,000	Local Authority e.g. Capital funding (Parks/Highways/ LLFA) Section 106 Agreements and community Infrastructure Levy. Greater London Authority: New Deal programmes ('Greener City' 'Grow Back Greener' and 'Green and Resilient Spaces') Thames Water AMP8 SWMP programme Local Wildlife and River Trusts Central Government (NFM) TRFCC: PROSPECT programme, NFM funding Business Improvement Districts (BIDs)	£ 27,979,879	£ 93,892	Long (3 - 15 years)	London Borough of Havering	LLFA	Land owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance													
			CDA 014 River Rom and Beam River	Medium																									
			CDA 015 Havering Park	Medium																									
			CDA 016 Rise Park West	High																									
			CDA 017 Rise Park	Medium																									
			CDA 018 Cranham	Medium																									
			CDA 023 Elm Park	Medium																									
			CDA 025 Gallows Corner	Medium																									
			CDA 026 Harold Hill North	Medium																									
			CDA 034 Thames	Medium																									
			CDA 036 Ingrebourne	Medium																									
			CDA 037 River Ravensbourne	Medium																									
			CDA 038 Heath Park North	Very Low																									
			CDA 039 Heath Park South	Low																									
CDA 040 Harold Hill South	Medium																												
3	Conveyance for managing 'usual rainfall' - less amount of water.	Designed to collect, delay and convey rainfall using green infrastructure techniques. This is generally above ground management.	CDA 014 River Rom and Beam River	Low	Construction of surface SuDS features in existing: Soft landscape £20-£50/m2 Hard landscapes £50-£100/m2	Design (scale dependent): £3,000-£20,000	Local Authority e.g. Capital funding (Parks/Highways/ LLFA) Section 106 Agreements and community Infrastructure Levy. Greater London Authority: New Deal programmes ('Greener City' 'Grow Back Greener' and 'Green and Resilient Spaces') Thames Water AMP8 SWMP programme Local Wildlife and River Trusts Central Government (NFM) TRFCC: PROSPECT programme, NFM funding	£ 122,015,180	£ 238,311	Long (3 - 15 years)	London Borough of Havering	LLFA	Land owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance													
			CDA 015 Havering Park	Medium																									
			CDA 016 Rise Park West	Medium																									
			CDA 017 Rise Park	High																									
			CDA 018 Cranham	Medium																									
			CDA 023 Elm Park	Low																									
			CDA 025 Gallows Corner	Low																									
			CDA 026 Harold Hill North	Low																									
			CDA 034 Thames	Low																									
			CDA 036 Ingrebourne	Medium																									
			CDA 037 River Ravensbourne	Low																									
			CDA 039 Heath Park South	Very Low																									
			CDA 040 Harold Hill South	Low																									
			4	Run-off reduction strategy				A long-term plan for making whole urban areas more green and permeable, this uses green infrastructure techniques to allow increased infiltration.	CDA 014 River Rom and Beam River								Medium	Construction of green/blue roof: £50-£150/m Construction of surface SuDS features in existing: Soft landscape £20-£50/m2 Hard landscapes £50-£100/m2	Design (scale dependent): £3,000-£20,000	Local Authority e.g. Section 106 Agreements and community Infrastructure Levy. Greater London Authority Thames Water Local Wildlife and River Trusts Central Government Business Improvement Districts (BIDs)	£ 162,211,914	£ 214,566	Long (3 - 15 years)	London Borough of Havering	LLFA	Land owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance
CDA 015 Havering Park	High																												
CDA 016 Rise Park West	Medium																												
CDA 017 Rise Park	High																												
CDA 018 Cranham	Very Low																												
CDA 034 Thames	Very Low																												
CDA 036 Ingrebourne	Medium																												
CDA 037 River Ravensbourne	Very Low																												
CDA 039 Heath Park South	Low																												
CDA 040 Harold Hill South	Medium																												
5	Specific planning policy	A new planning policy aiming to provide a considerable improvement of surface water runoff for development in strategic sites and redevelopment areas. Green infrastructure should be favoured over grey. Implement feasibility study to understand opportunities to provide storage in greenspace, parks and regeneration and developments areas (Romford strategic development area and industrial strategic area)			CDA 014 River Rom and Beam River	Very High	N/A		Internal costs to the Local Planning authority and internal stakeholders	Neighbourhood Community Infrastructure Levy Local Authority e.g. Section 106 planning contributions Borough CIL Local Levy	£ 122,015,180	£ 238,311	Medium (1 - 3 years)	London Borough of Havering	Planning	Residents and the public (responding to the consultation)	A3				What number of properties are protected? Has the measure been implemented?	New measure							
					CDA 017 Rise Park	High																							
					CDA 018 Cranham	High																							
					CDA 023 Elm Park	High																							
			CDA 025 Gallows Corner	High																									
			CDA 034 Thames	High																									
			CDA 036 Ingrebourne	High																									
			CDA 037 River Ravensbourne	High																									
			CDA 038 Heath Park North	High																									
			CDA 039 Heath Park South	High																									
			CDA 040 Harold Hill South	High																									
			6	Relocation of properties or infrastructure away from flood risk areas	Proposing new developments in areas with low flood risk and having availability to move existing critical infrastructure to low flood risk areas.	CDA 015 Havering Park		Medium			Case by case basis	Case by case basis						Neighbourhood Community Infrastructure Levy Local Authority e.g. Section 106 planning contributions Borough CIL Local Levy	£ 14,640,218	£ 203,336			Medium (1 - 3 years)	London Borough of Havering	LLFA Planning	Land owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance
						CDA 026 Harold Hill North		Low																					
			7	Land management	Implementing land management actions will reduce the volume of runoff, to reduce the flood risk further downstream.	CDA 015 Havering Park		Medium			Case by case basis	Case by case basis						Local Levy Greater London Authority (GLA) LLFA budget	£ 10,948,874	£ 223,446			Medium (1 - 3 years)	London Borough of Havering	LLFA Planning	Land owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance
CDA 017 Rise Park	Low																												
CDA 018 Cranham	Low																												
CDA 039 Heath Park South	Very Low																												
8	Property-level protection and resilience	Measures that prevent water entry or reduce the amount of floodwater that enters a property e.g. flood doors, flood gates, self-closing air bricks.	CDA 016 Rise Park West	Very Low	Manual sectional barrier: £600-1900/m Manual flood gates (5x1m): £5,500	Consultation with the community if relevant	Estates Improvement Budget (EIB) Flood Defence Grant in Aid (FDGiA) Local Levy	£ 9,560,465	£ 187,460	Medium (1 - 3 years)	London Borough of Havering	LLFA Planning	Home owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance													
			CDA 040 Harold Hill South	Very Low																									

ID	Measure	Description	Location	Priority Ranking	Cost/Funding			Estimated Benefit		Typical duration	Responsibility		Other Stakeholders	LFRMS Aims	Review / monitoring (KPIs)	Origin of the measure
					Estimated Capital Cost	Estimated Other Cost	Potential Funding Source	Total	Average per Property		Lead Organisation	Primary Support				
9	Asset management and maintenance	Having a register of all existing assets and maintenance plan which includes frequency of maintenance.	CDA 017 Rise Park	Low	Case by case basis	Case by case basis	Service area revenue budgets LLFA grant	£ 7,423,518	£ 161,381	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other RMA's and asset owners (riparian)	A2, A3	What number of properties are protected? Has the measure	SWMP guidance
			CDA 034 Thames	Low				£ 5,241,782	£ 201,607							
10	Watercourse management and maintenance	Maintenance to ensure optimal functionality and prevent degradation e.g. keeping growth of vegetation under control, free of debris and reducing excess silt.	CDA 017 Rise Park	High	Engineering channel maintenance: Manual clearance £241-7800/km/year Mechanical maintenance £214-6500/km/year Natural channel maintenance: Manual clearance £710-25000/km/year Mechanical clearance £120-8400/km/year	Inspection cost: £2.6/m	Service area revenue budgets Relevant RMA's budget Riparian owners	£ 7,423,518	£ 161,381	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other relevant RMA's	A2	What number of properties are protected? Has the measure been implemented?	SWMP guidance
			CDA 034 Thames	Very Low				£ 5,241,782	£ 201,607							
11	Restoring urban watercourse	This technique aims to mimic natural processes as much as possible without increasing flood risk e.g. in channel enhancements, larger scale river restoration and SuDS.	CDA 017 Rise Park	Low	£70-600/m2		Local Levy Greater London Authority (GLA) Relevant RMA's	£ 19,993,487	£ 204,015	Long (3 - 15 years)	London Borough of Havering	LLFA	Other relevant RMA's	A3	What number of properties are protected? Has the measure been	SWMP guidance
			CDA 034 Thames	Very Low				£ 14,399,106	£ 261,802							
12	Reducing surface water in the sewer	Infiltration and storage can be used to reduce water in sewers e.g. soakaways and reducing impermeable surfaces.	CDA 017 Rise Park	Low	Construction of green/blue roof: £50-£150/m Construction of surface SuDS features in existing: Soft landscape £20-£50/m2 Hard landscapes £50-£100/m2	Design (scale dependent): £3,000-£20,000	Local Authority e.g. Section 106 Agreements and community Infrastructure Levy. Greater London Authority Thames Water Local Wildlife and River Trusts Central Government Business Improvement Districts (BIDs)	£ 19,993,487	£ 204,015	Long (3 - 15 years)	London Borough of Havering	LLFA	Thames Water Anglian Water Land owners	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance
			CDA 018 Cranham	Low				£ 31,296,635	£ 230,122							
13	Carry out flood modelling and scope the potential natural flood management techniques	Work with Land of the Fanns to carry out flood modelling and scope potential natural flood management options in Bedfords Park local nature reserve	CDA 017 Rise Park	Low	N/A	Feasibility studies likely to start from £30,000	Flood Defence Grant in Aid (FDGiA) Local Levy Co-funding with other RMA's	£ 15,102,293	£ 228,823	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other RMA's and land owners	A3	Has potential NFM been identified?	FRMP2
14	Carry out flood modelling in Rise Park Critical Drainage Area	Work together to carry out flood modelling to scope options for flood alleviation projects and natural flood management options in the Rise Park Critical Drainage Area.	CDA 017 Rise Park	Low	N/A	Modelling study likely to start from £30,000	Flood Defence Grant in Aid (FDGiA) Local Levy Co-funding with other RMA's	£ 15,102,293	£ 228,823	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other relevant RMA's	A3	Have flooding hotspots been identified?	FRMP2
15	Carry out flood modelling of main river and adjacent educational facility in the Harold Hill Critical Drainage Area	Carry out flood modelling of main river and adjacent educational facility in the Harold Hill Critical Drainage Area.	CDA 026 Harold Hill North	Low	N/A	Modelling study likely to start from £30,000	Flood Defence Grant in Aid (FDGiA) Local Levy Co-funding with other RMA's	£ 40,819,589.53	£ 223,057.87	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other relevant RMA's	A3	Have flooding hotspots been identified?	FRMP2
16	Urban watercourse engineering	Hard engineering flood techniques e.g. storage, embankments, water and diversion channels.	CDA 034 Thames	Very Low	Retaining wall: £748.8-4810/m Embankments: £780-4420/m	Maintenance cost: Embankment £13-22490/km/year Retaining wall £0-1170/km/year	Flood Defence Grant in Aid (FDGiA) Local Levy Co-funding with other RMA's	£ 18,952,453.93	£ 73,744.96	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other relevant RMA's	A3	What number of properties are protected? Has the measure been implemented?	SWMP guidance

The Action plan (Items 17 – 61) provide a list of actions to review, develop, and implement which will be subject to funding, approval and resources.



ID	Measure	Description	Location	Cost/Funding		Typical duration	Responsibility		Other Stakeholders	LFRMS Aims/ Objectives	Review / monitoring (KPIs)	Origin of the measure
				Estimated Capital Cost	Potential Funding Source		Lead Organisation	Primary Support				
Flood Risk Knowledge and Awareness												
17	Improve understanding of flood risk in the borough and raising public awareness, including sharing information on the measures that can be implemented at property/business level.	Increasing understanding and knowledge of flood risk in the borough.	Boroughwide	N/A	LLFA funding Council budget	Long (3 - 15 years)	London Borough of Havering	LLFA	Different Council departments Residents and businesses	A1	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
18	Improve information on surface water flood events.	Increasing understanding and knowledge of flood risk in the borough and updated proforma to collect information.	Boroughwide	N/A	LLFA funding	Medium (1 - 3 years)	London Borough of Havering	LLFA		A1	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
19	Commission Section 19 reports promptly after flooding event.	Investigating flood risk reports be commissioned for completion as soon as possible following the flood event.	Boroughwide	N/A	LLFA funding	Short (6 months & ongoing)	London Borough of Havering	LLFA		A1, A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	From Section 19 recommendation
20	Produce a holistic Thames Estuary 2100 Riverside Strategy in the London Borough of Havering.	Write a riverside strategy for the Borough	Boroughwide	Potentially £40k	LLFA grant/budget. The TRFCC has allocated budget for a Joint Thames Strategies Refresh Project so it could be implemented through this project.	Long (3 - 15 years)	London Borough of Havering	LLFA	TRFCC Joint Thames Strategies Refresh Project partners	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	FRMP2
21	Link measures from the SMWP directly to the Flood Risk Management Strategy for the Borough such that a programme of work is visible.	Create a joint Action Plan.	Boroughwide	N/A	LLFA funding	Short (6 months & ongoing)	London Borough of Havering	LLFA	Different Council Departments and other RMAs (EA, Water Companies, neighbouring boroughs)	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
22	Update the Borough's Strategic Flood Risk Assessment.	As part of the Local Plan, a Strategic Flood Risk Assessment should be produced.	Boroughwide	£40,000-£50,000	Local Plan evidence base budget	Medium (1 - 3 years)	London Borough of Havering	Planning Authority		A2, A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	FRMP2
23	Maintain a register of critical flood risk sites across the borough, plus make it available to internal and external stakeholders.	Part of the LLFA duties.	Boroughwide	N/A	LLFA funding	Ongoing	London Borough of Havering	LLFA	Other RMAs and other stakeholders who own flood risk assets	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measures
24	Ensure more sustainable planning decisions by providing developers with copies/links of Local Flood Risk Management Strategy and joint Action Plan.	Ensure that developers have access to the latest guidance and information.	Boroughwide	N/A	Planning application process LLFA funding	Short (6 months & ongoing)	London Borough of Havering	LLFA	Developers	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measures
25	Identify a list of priorities that can be managed with the budget available for flood risk.	Ensure that the Council adopts the most cost-effective approach.	Boroughwide	Already done through this project	LLFA funding	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other Council Departments	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measures
26	Review corporate and core strategies to identify where mutual goals and aims can be met through discharging LLFA responsibilities and actions.	Ensure that the Council adopts the most cost-effective approach and enhances partnership working within the Council departments.	Boroughwide	N/A	Council budget	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other Council Departments	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
Emergency Planning												
27	Develop emergency response plans across the borough.	Ensure upskilling of officers and the implementation of strong policies.	Boroughwide	N/A	Contingency planning funding	Short (6 months & ongoing)	London Borough of Havering	Emergency planning	Other Council Departments	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
28	Ensure business continuity planning.	Ensure upskilling of officers and the implementation of strong policies e.g. Operational response in terms of flooding and developing plans for flood hotspots	Boroughwide	N/A	Council budget	Short (6 months & ongoing)	London Borough of Havering	Planning	Local residents	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
29	Raising flood insurance awareness for residents and businesses.	Increasing understanding and knowledge of flood insurance benefits. Could be done when discharging any Council duties and activities.	Boroughwide	N/A	Council budget	Short (6 months & ongoing)	London Borough of Havering	LLFA	Local residents	A1	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
30	Encourage community flood action groups and resilient community plans.	Encourage working collaboratively internally and externally.	Boroughwide	N/A	Council budget	Short (6 months & ongoing)	London Borough of Havering	Planning	Local residents	A1	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
31	Empower volunteers to undertake Flood Warden duties in the London Borough of Havering.	Work with the Emergency Planning team to understand and implement Flood Warden duties	Boroughwide	N/A	Council budget	Short (6 months & ongoing)	London Borough of Havering	LLFA	Local residents	A1	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	FRMP2
32	Improve preparedness by arranging for term service contractor to maintain a stock of plant and materials for emergency flooding responses.		Boroughwide	N/A	Council budget	Short (6 months & ongoing)	London Borough of Havering	LLFA	Local residents	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measure
Land Use Planning												
33	Develop land-use planning policy to address flood risk locally	Implement more stringent policies where required to ensure more sustainable planning decisions.	Boroughwide	N/A	Local Plan budget	Medium (1 - 3 years)	London Borough of Havering	Planning	Planning stakeholders (GLA, statutory consultees, neighbouring planning authorities), residents and businesses responding to public consultation	A3	LBH Corporate Plan 2024-2027: A great place to live, work and enjoy	SWMP guidance/ New Measure

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ID	Measure	Description	Location	Cost/Funding		Typical duration	Responsibility		Other Stakeholders	LFRMS Aims/ Objectives	Review / monitoring (KPIs)	Origin of the measure
				Estimated Capital Cost	Potential Funding Source		Lead Organisation	Primary Support				
34	Review existing Planning Policy to ensure that Local Flood Risk Management is suitably linked to new development - in line with SuDS approval status, increased knowledge of flood risk and future Local Flood Risk Management Strategy.	Implement more stringent policies where required to ensure more sustainable planning decisions.	Boroughwide	N/A	Local Plan budget	Short (6 months & ongoing)	London Borough of Havering	LLFA	Planning Department	A3	LBH Corporate Plan 2024-2027: A great place to live, work and enjoy	Previous SMWP
35	Engage developers at pre-approval stage in the London Borough of Havering.	Ensure that flood risk and drainage are addressed as soon in the planning process as possible.	Boroughwide	N/A	Planning application process and pre-application advice fees	Short (6 months & ongoing)	London Borough of Havering	LLFA	Planning Department	A3	LBH Corporate Plan 2024-2027: A great place to live, work and enjoy	FRMP2
Partnership Working												
36	Encourage working in partnership with other RMAs, Water Companies, residents and businesses.	With Regional Flood and Coastal Committee, districts, borough, IDB in relation to ordinary watercourses and with planning to streamline processes.	Boroughwide	N/A	LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other RMAs and other stakeholders interested in flood risk and drainage	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	From LLFA duties review
37	Undertake stakeholder mapping as a part of Communication Plan development.		Boroughwide	N/A	Council budget	Short (6 months & ongoing)	London Borough of Havering	LLFA	LBH communications and engagement team	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
38	Ensure key messages in the Community engagement (CE) plan that encourage attitude and behaviour change with the public are delivered.		Boroughwide	N/A	Council budget	Long (3 - 15 years)	London Borough of Havering	LLFA	LBH communications and engagement team	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
39	Develop a collaborative resourcing approach across Drain London group 5, (neighbouring LLFAs) enabling the relationships developed in the group to be the springboard to efficient resource management on local flood risk issues.	Effective partnership working across all stakeholders	Boroughwide	N/A	LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Neighbouring authorities	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
40	Work with the Roding, Beam, and Ingrebourne Catchment Partnership to implement flood risk measures on the ground and engage with the local community more effectively, supporting both their Catchment Plan and the Council's Local Flood Risk Management Strategy and Action Plan.		Boroughwide	N/A	LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other RMAs and interested stakeholders	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measure
41	Have quarterly flood risk meetings to encourage collaboration with internal and external parties.		Boroughwide	N/A	LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other RMAs and interested stakeholders	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measure
42	Produce a concise table documenting LLFA duties and their implementation		Boroughwide	Already done through this project	LLFA grant	Ongoing	London Borough of Havering	LLFA	Relevant stakeholders	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measure
43	Agree with other stakeholders the precise maintenance responsibility for every drainage asset within the borough.	Ensure dialogue and effective partnership working to maintain drainage assets in good condition and reduce flood risk	Boroughwide	N/A	LLFA grant and other maintenance funding	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other RMAs, asset owners and riparian owners	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measure
Measures on the Ground												
44	Take forward on the ground measures in the joint Action Plan towards option appraisal and design.	Economically sustainable response to flood risk.	Boroughwide	N/A depending on the measures	LLFA grant, Local Levy, TRFCC funding, other RMAs funding	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other RMAs, TRFCC	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
45	Installation of additional rain gauges.	Additional rain gauges could be installed to allow for better understanding of local rainfall conditions.	Boroughwide	£2,000 per rain gauge plus ongoing maintenance costs	LLFA grant, other RMAs funding	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other RMAs	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	From Section 19 recommendation
46	Investigate scope to supply airbrick covers to the properties at risk	Investigate scope to supply airbrick covers to the properties at risk (particularly those with thresholds at a level lower than road level).	Boroughwide	N/A internal study	LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Home owners	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	From Section 19 recommendation
47	Investigate opportunities for SuDS retrofitting at council buildings and on highways.	Increase drainage to limit flood risk to council buildings and highways.	Boroughwide	Feasibility study £25,000+	Service area capital budgets Council budget Greater London Authority (GLA) Transport for London National Highways	Short (6 months & ongoing)	London Borough of Havering	LLFA	Housing department, Corporate services, Building occupiers, other RMAs (Transport for London -TfL, National Highways) and other stakeholders who may be able to fund them.	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	FRMP2
48	Review of need for the implementation of new watercourse assets	Understand what supporting infrastructure is needed for reduce flood risk from watercourses.	Boroughwide	Feasibility study £25,000+	LLFA grant TRFCC Grant in Aid or Levy Funding	Medium (1 - 3 years)	London Borough of Havering	LLFA	EA, other neighbouring boroughs	A1, A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New Measure
49	Develop a prioritised 5-year programme of Natural Flood Management (NFM) projects across the borough.	Understand the locations where NFM could be implementing and where it could have the highest impact.	Boroughwide	Feasibility study £25,000+	LLFA grant TRFCC Grant in Aid or Levy Funding	Medium (1 - 3 years)	London Borough of Havering	LLFA	EA, other neighbouring boroughs	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measure
50	Address flood risk to reduce flooding on highways by adding drainage considerations to a checklist for scheme designs.	Ensure that any highways schemes consider flood risk from the outset.	Boroughwide	N/A internal study	Council budget LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	TfL and National Highways	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measure

The Action plan (Items 17 – 61) provide a list of actions to review, develop, and implement which will be subject to funding, approval and resources.



ID	Measure	Description	Location	Cost/Funding		Typical duration	Responsibility		Other Stakeholders	LFRMS Aims/ Objectives	Review / monitoring (KPIs)	Origin of the measure
				Estimated Capital Cost	Potential Funding Source		Lead Organisation	Primary Support				
Asset Management												
51	Increased asset monitoring and clearance.	Increased monitoring and clearance of screens near to regular flooding locations.	Boroughwide	N/A	Council maintenance budgets Service area revenue budgets	Short (6 months & ongoing)	London Borough of Havering	LLFA	Highways Department	A2, A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	From Section 19 recommendation
52	Develop systematic maintenance regime of watercourse and its assets within the area.		Boroughwide	N/A	Council maintenance budget Service area revenue budgets Council budget LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	EA, other neighbouring boroughs	A1, A2, A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	From Section 19 recommendation
53	Maintain the asset register and continue developing it, setting out the assets owned, maintained and managed by the LLFA and others.	Develop a register of all existing assets and maintenance plan which includes frequency of maintenance and which assets have a significant effect on flood risk.	Boroughwide	N/A ongoing project	Service area revenue budgets LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other flood risk and drainage asset owners (TfL, EA, Water Companies, National Highways, Network rail, etc)	A1 A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SWMP
54	Develop an assets management system in line with the requirements under the FWMA and regulations.	Linked to the previous measure	Boroughwide	N/A ongoing project	Service area revenue budgets LLFA grant	Ongoing	London Borough of Havering	LLFA	Other flood risk and drainage asset owners (TfL, EA, Water Companies, National Highways, Network rail etc)	A1, A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP
55	Work with the Infrastructure Delivery Group to improve processes for asset data collection and utilise asset condition data in the Borough	Linked to the previous two measures to achieve a robust understanding of flood risk and drainage assets.	Boroughwide	N/A internal partnership working	Council budget LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other flood risk and drainage asset owners (TfL, EA, Water Companies, National Highways, Network rail etc)	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	FRMP2
56	Improve SuDS Approval Body (SAB) awareness and resource implications.	Defra will consult on how Schedule 3 of the FWMA 2010 and the work of SABs will be implemented. Review and respond to the Defra consultation and put procedures in place to ensure the SAB role is implemented properly in Havering	Boroughwide	N/A	LLFA grant	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other neighbouring boroughs, Defra	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	From LLFA duties review
57	Carry out an assessment of potential desilting and ditch clearing works.	Understand maintenance needs and costs.	Boroughwide	N/A internal study	Council budget LLFA grant	Short (6 months & ongoing)	London Borough of Havering	LLFA	Other asset owners	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	FRMP2
58	Invest in main rivers and watercourses by seeking biodiversity and natural flood management opportunities and employ a risk-based maintenance approach in the Borough.	Linked to previous NFM measure ('Develop a prioritised 5-year programme of Natural Flood Management (NFM) projects across the borough'). Once the programme is in place, NFM projects can be implemented.	Boroughwide	Variable from £25,000 to £100,000 depending on the project	LLFA grant TRFCC Grant in Aid and Levy funding	Long (3 - 15 years)	London Borough of Havering	LLFA	Other RMAs and interested stakeholders	A3	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	FRMP2
59	Manage and reduce flood risk by having a risk-based maintenance regime that prioritises critical flooding locations.	Linked to previous measures ('Increased asset monitoring and clearance', 'Develop systematic maintenance regime of watercourse and its assets within the area' and 'Carry out an assessment of potential desilting and ditch clearing works')	Boroughwide	Current annual budget is £80K	Council maintenance budgets Service area revenue budgets Maintenance budgets will need to be substantially increased to accommodate rising contractor costs, deficiency of previous funding & higher risks of flooding due to climate change & urbanisation.	Medium (1 - 3 years)	London Borough of Havering	LLFA	Other flood risk and drainage asset owners (TfL, EA, Water Companies, National Highways, Network rail, etc).	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measures
Skills Required												
60	Devise a professional development plan to upskill officers involved with flood risk management.	Understand what skills do the Council have and what skills are needed to produce a professional development plan.	Boroughwide	N/A (internal officer time and potentially training budget)	LLFA grant Council training budget	Short (6 months & ongoing)	London Borough of Havering	LLFA	Different Council departments involved in LLFA duties discharge (Highways, Planning, Climate Change). External training providers.	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	New LFRMS Measures
61	Ensure required skills and technical capability to deliver SMWP actions and the LLFA duties and powers in line with the resources available.	Upskill staff when needed and work with other RMAs and relevant stakeholders. Attendance to relevant training offered by others including the Thames Flood Advisors (part of the TRFCC).	Boroughwide	N/A (internal officer time and potentially training budget)	LLFA grant Council training budget	Medium (1 - 3 years)	London Borough of Havering	LLFA	Different Council departments involved in LLFA duties discharge (Highways, Planning, Climate Change). External training providers.	A2	LBH Corporate Plan 2024-2027: Enabling a resident-focused and resilient Council	Previous SMWP