



# Surface Water Flood Risk Management in London

This briefing provides a summary of the issues surrounding surface water flooding and the work of the Surface Water Flooding Task and Finish Group that was established following the flooding events in July 2021.

## Overview

The recommendations of the Surface Water Flooding Task and Finish Group create a pathway towards the development of a long-term strategic plan for surface water flood risk management in London.

The development and delivery of the strategic plan will be overseen by a Strategic Flood Group. While this is being established, officers will continue to undertake evidence gathering and develop the scope and structure of the group and plan.

## Background

### Types of flood risk and management

London faces several types of flood risk – tidal flooding, fluvial (river) flooding, surface water (pluvial flooding), and sewer and groundwater flooding. Surface water flooding occurs when the drainage system becomes overwhelmed with rain being unable to enter drains, sewers or watercourses. It is particularly difficult to manage due to a number of factors including (i) lack of predictability in timing and location; (ii) increased levels of impermeable surfacing; (iii) a Victorian drainage system not designed for the current population; (iv) lack of data including lack of modelling regarding flood risk and incomplete knowledge of the location and current state of flood assets; and (v) public lack of awareness of their exposure to this flood risk, what actions they might take to help mitigate it, and what to do during a flood event. Moreover, the severity of this issue is likely to increase over the coming decades due to expectations that climate change will lead to more frequent, intense storms.

### London Flooding Events

On 12 and 25 July 2021, London experienced intense rainstorms that overwhelmed the drainage systems and led to extensive surface water and sewer flooding, affecting homes,

businesses, health infrastructure and transport networks. Twenty four boroughs were impacted, with the worst impacts felt particularly in parts of east and north London. More than 1,000 properties were reported as flooded, although there is suspected to be significant under-reporting. The Met Office data shows that a narrow swathe of London saw rainfall totals exceeding 80mm, falling in a relatively short space of time against 46.8mm average rainfall for the entirety of July.

## Initial Actions Undertaken

Following the events in July 2021, the London Resilience Partnership developed a debrief that included 30 recommendations, which the partnership is now in the process of implementing. In addition, the Mayor of London convened a roundtable of the relevant organisations, which continues to meet; and boroughs, together with the Environment Agency and other relevant partners established a Task and Finish Group to explore the issue of long-term surface water flood risk management. The Task and Finish Group remit covers governance, funding, communications, long term strategy and evidence.

**The Task and Finish Group was set up to develop recommendations for a longer-term response to London's surface water flood risk**

## Analysis

### Membership of the Task and Finish Group

The Task and Finish Group was set up to develop recommendations for a longer-term response to London's surface water flood risk. The group is co-chaired by London Councils' Transport and Environment Committee (TEC) Chair and the Environment Agency Area Director for London. Other members of the group include representatives from Chartered Institution of Water and Environmental Management (CIWEM), Chief Executives London Committee (CELC), the Greater London Authority (GLA), London Environment Directors Network (LEDNet), London Borough of Southwark as London Councils lead for the resilient and green programme, London Drainage Engineers Group (LoDEG), London Climate Change Partnership (LCCP), London Resilience Partnership, Transport for London (TfL), Thames Regional Flood and Coastal Committee (RFCC), and Thames Water. An officers' group was established to assist the main group through information gathering and preliminary investigation of the issues.

### Findings

The group's initial investigations and discussions identified five major areas of concern – **governance, funding, evidence, communications, and strategic planning** with the following issues being highlighted.

- Governance - No single organisation is in overall charge of managing surface water flood risk in London. Furthermore, there is a lack of understanding of the overlaps and interactions between the differing responsibilities amongst a wide range of organisations.
- Funding - There is insufficient funding to manage the risk. There is a lack of knowledge concerning potential funding opportunities and a lack of understanding of what is needed to develop and submit proposals to secure the needed funds.
- Evidence - There is a lack of understanding of what flood assets are currently available, who owns and maintains them, and what condition they are in. In addition, there is also a lack of modelling that can help organisations understand where floods are likely to occur and what efforts should be undertaken to lower risk.
- Communications - There is a lack of understanding of the risks of surface water flooding and the responsibilities of the various stakeholders to lower such risks.
- Strategic Plan - the absence of an overall strategic plan and vision, as well as a body tasked with its development and implementation, underlay all of these issues.

## Recommendations

Following the investigations and discussions within the task and finish group it became clear that two sets of recommendations would be needed – (i) strategic recommendations that focused on the overall need for the development of a long-term strategy and (ii) additional recommendations which focused on the gaps identified by the officers and that would be progressed in parallel with the establishment of the governance structure and support needed to develop the strategic plan.

### Strategic Recommendations

- Given the scale of the challenge facing London and the fragmented governance landscape, the Task and Finish Group recommended the establishment of a Strategic Group to:
  - Collectively provide leadership on strategic-level surface water management in London.
  - Agree a vision for how to manage the increasing risk of surface water flooding in London.
  - Develop a strategy and plan to achieve the vision.
  - Develop a supporting communications strategy that places flood risk as part of an ongoing development of community resilience with regard to incidents which may increase in frequency and intensity due to climate change; and engages all stakeholders, from communities at risk of flooding to Risk Management Authorities, regulators, regional and national government.
  - Determine the delivery mechanism(s) and required resources to implement the plan, together with the monitoring framework to ensure that the delivered interventions result in the intended level and rate of risk management
  - In designing the Strategic Group, Strategy and Plan, consideration will be given to how broader climate change risks, such as heat, drought and wind or snow can be considered in the future.
- The Strategic Group will need:
  - Senior representation of the participating organisations, which will include but not necessarily be limited to London Councils TEC, LLFAs, CELC, Thames RFCC, GLA, TfL, Environment Agency, Thames Water, London Resilience Partnership.
  - A clear governance structure.
  - Sufficient resourcing, in terms of both staff time and funding to commission and support the work, commensurate with the scale of ambition.
  - The commitment of all relevant organisations to provide data and resources to support the development of the strategy and plan.
- A ‘transition group’, comprising key representatives of the Task and Finish Group, will support the establishment of the Strategic Group and its work through:
  - Developing the scope for the strategy and plan
  - Proposing the Strategic Group’s governance structure and processes
  - Identifying the resources (financial, data, models etc) required to develop the strategy and plan and the funding opportunities to realise them
  - Initiating the standardisation and collation of the evidence the strategy and plan will need.

### Additional Recommendations

These are given in full in the appendix. The recommendations cover basements, governance, funding, evidence and communications with the aim of building the knowledge base in this area in order to help scope the work of the Strategic Group and inform the strategic plan.

## Resourcing

The development of a Strategic Group, vision, strategy, and plan will require considerable resource. In order to support the initial establishment of the Group and its work over the next six months, a number of organisations have offered cash and officer time.

Work will proceed under the following timeline:

- Q4 21/22 Task and Finish Group agrees recommendations
- Q1 22/23 Identification of governance and resource for Strategic Forum, consideration of scope of the strategic plan and initial evidence gathering.
- Q2 22/23 Agreement on structure and resource for Strategic Forum and scope of the strategic plan.
- Q3 22/23 Launch of Surface Water Flooding Strategic Forum

The report and its recommendations were supported by TEC Executive and the transition group has commenced work to implement the recommendations and establish the strategic group. Further details concerning the recommendations, findings and the evidence gathered to date can be found in the report delivered to TEC Executive in February (<https://www.londoncouncils.gov.uk/node/39114>).

## Commentary

Surface water flooding poses a growing and significant risk to Londoners but is still poorly understood and under-resourced. The work of the Task and Finish group has underlined profound weaknesses with the current approach and the urgent need to intensify efforts around gathering evidence, identifying funding opportunities, maintaining current assets and constructing new assets as needed, as well as raising public awareness and resilience. Such efforts will require long-term engagement and support as well as significant levels of funding. Critical to this will be the effective coordination of and support from the boroughs and other Risk Management Authorities.

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### Links:

### This member briefing has been circulated to:

Portfolio holders and those members who requested policy briefings in the following categories: Environment, Planning

## Appendix – Additional Recommendations

- **Basements:**
  - Identify areas or properties at high risk of basement flooding and determine how best to use this information to improve flood resilience, both before flooding occurs and in improving incident response during a flood incident.
- **Governance:**
  - Contacts database to be updated biennially by London Councils.
  - Identification of governance structure for Surface Water Flooding Strategic Group, agreement by Q2 22/23, launch in Q3 22/23.
- **Funding:**
  - Undertake work to identify the level of resource required to support the Strategic Group and develop and implement the strategic plan.
  - Support for smaller flood risk management schemes and ability to access funding to be requested from Government by TEC
  - RMAs, and London Councils TEC to consider what future resource might be offered to support this work (some further details in the resourcing section below)
- **Evidence:**
  - Map vulnerable infrastructure and places (people, basements and key infrastructure) with a particular emphasis on understanding the situation concerning basements and the level of vulnerability of residents there.
  - Develop an agreed template and standards for collecting relevant evidence and for modelling.
  - Develop a memorandum of understanding for sharing data amongst partners.
  - Review what models are required to support the development of the London surface water strategy and plan, and how these should be achieved.
  - Put together a bid for Thames RFCC and Thames Water to fund modelling to inform Drainage and Wastewater Management Plans and Local Flood Risk Management Strategies.
  - The ARCADIS strategic SuDS identification work which was done for the London Strategic SuDS pilot should continue, focusing on priority hotspots.
  - Collect evidence on financial and other, more intangible savings achieved through the avoidance of surface water incidences.
  - Identify and populate a centralised datastore that can collate and manage the gathered data.
  - Work with the Met Office and other providers to agree the data that should be provided to RMAs and other relevant agencies (such as the estimated return periods of rainfall events) to help understand the impacts of flooding and improve response planning.
  - London Councils TEC to support boroughs in responding to this review of existing resource, governance, and evidence.
- **Communications:**
  - Development of public communications that places flood risk as part of an ongoing development of community resilience with regard to incidents which may increase in frequency and intensity due to climate change and focuses on improving public understanding of:
    - current and future risk levels,
    - roles and responsibilities of the different organisations
    - actions that can be undertaken by the public to prepare for and lower the risk of surface water flooding to them (including financial risk through e.g., adequate insurance).