



LONDON SURFACE WATER STRATEGY

Interim report

Increasing London's resilience to surface water flooding through collective action that benefits society and the environment

July 2024

FOREWORD



Dr Elizabeth Rapoport
Chair,
London Surface Water
Strategic Group.



Strategy publication

The London Surface Water Strategy, and supporting technical document, will be published later this year.

Welcome to this interim report

Like many Londoners, I experienced the devastating effects of the extreme flash flooding that hit the city in July 2021. Many neighbourhoods, including my own, were flooded with rainwater and sewage, as were businesses, hospitals, schools and infrastructure.

Following the 2021 flooding, a number of reviews identified the lessons to be learned from these events. Each independently identified the need for strategic leadership to manage surface water in London.

I'm proud to Chair the London Surface Water Strategic Group. It's made up of decision makers from the organisations, agencies and groups that have a role to play in surface water flooding across our city. The members of the group know that each organisation, working independently, will not be able to address the risks posed by surface water flooding in London. This is why we've come together to collaborate, share risks and coordinate our activities.

Over the last three years, we've made considerable progress. Some examples from our work are outlined in this document, and further insights can be found in the July 2024 Annual Monitoring Report.

We've also worked with stakeholders from a number of major global cities to understand the lessons they've learnt from their surface water flooding programmes and how these can be applied to London.

This interim report is an important milestone in our work to develop a unified strategy for managing surface water in London and provide a framework for coordinated stakeholder action.

LONDON SURFACE WATER STRATEGIC GROUP

Members:

- London Councils – London Councils Transport and Environment Committee Chair and Vice Chairs
- Thames Regional Flood and Coastal Committee - Independent Committee Member and two Borough Councillor Representatives
- Mayor of London – Deputy Mayor for Environment and Energy
- Environment Agency – London Area Director
- Transport for London – Chief Health, Safety and Environment Officer
- Thames Water – Engineering and Asset Director
- London Fire Brigade – Assistant Commissioner

Three years on from the 2021 flooding, we publish this interim report which summarises:

- Why and how the strategy is being developed
- The new collaborative and integrated approach we propose for its implementation
- The outcomes the strategy will deliver and its contribution to wider benefits for London

This is a starting point, not an end point. In the coming months we'll continue to evolve our approach, working together and engaging with a wide range of people and organisations, before publishing a final strategy.

Purpose of this document:

- To set out the direction of our forthcoming strategy, as part of our ongoing engagement with partners and wider stakeholder groups, to continue to inform its development
- To highlight progress in delivering initiatives to better manage and mitigate the impacts of surface water flooding across London
- To initiate further discussions around how our strategy can best work in practice
- To raise awareness and gain support for the strategic approach from partners and wider stakeholder groups, ahead of the strategy's publication later this year

The Strategic Group is grateful for the collaboration and commitment we've received to date from the wide range of partners who have fed into our work. We hope we can continue to count on widespread support as we work to finalise and implement London's first comprehensive surface water strategy.



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INTRODUCTION

What we've achieved so far

The Strategic Group is leading the co-creation and implementation of the London Surface Water Strategy. The group is a voluntary, independent partnership working to encourage new approaches with stakeholder organisations and groups at a national, regional and local level. We outline below some highlights from our partnership achievements to date.

Development of the London Surface Water Strategy

We've commissioned detailed analysis of the drivers and extent of surface water flooding in London, and a strategy and action plan to address them. Representatives from every London borough and wider stakeholder groups have been brought together to inform and help co-create the strategy.

Carried out new risk modelling

The new modelling outlines the exposure of people, property and infrastructure in London to surface water flood risk. It will help us in a number of ways including, establishing a consistent understanding of surface water flood risk across the city, estimating potential flooding costs and identifying areas likely to

require cross boundary collaboration to deliver catchment-scale solutions.

Installed Sustainable Drainage Systems (SuDS)

SuDS are interventions such as rain gardens and storm tanks, that can help reduce surface water flood risk by slowing the rate and volume of rainwater entering the drainage system. Since July 2021, the Strategic Group partners have collectively delivered dozens of SuDS projects across London, including the rain garden at Tolworth roundabout, and green roof and permeable paving at Old Street station.



Identified and delivered new sources of funding

Strategy funding activities have included trialling innovative ways to access funding for SuDS. The Department for Environment, Food & Rural Affairs has provided £1m funding to support the delivery of small-scale SuDS.

Complimenting this funding will be a new market-based approach for delivering SuDS through streetworks. This initiative connects organisations that dig up London's roads with organisations willing to pay for SuDS installation. It was recently awarded £1.3m by Ofwat, the Water industry's economic regulator.

Delivered sewer flooding protection

Over 570 London properties have been made more resilient to sewer flooding through the installation of devices such as non-return valves. This programme has prioritised basement flats, especially those occupied by vulnerable people. Over the next two years, a further 125 properties will be better protected.

Empowered new Community Flood Action Groups

The National Flood Forum, a charity that helps communities

to prepare, respond and cope with flooding events, has been appointed to support up to 14 communities affected by the July 2021 flooding. To date, six communities have developed Community Flood Action Plans identifying actions that can improve local resilience to future flooding events.

Stakeholder engagement and public awareness campaigns

We've delivered a broad range of communication activities to public and private sector stakeholders, London's residents and wider communities. Our activities have included launching webpages and carrying out basement property awareness campaigns in 2022 and 2023. Over 90,000 leaflets were distributed to basement occupiers during these campaigns.

Annual Monitoring Report

We established the Annual Monitoring Report to capture and review actions and progress since the 2021 flooding events. Find out more in our recent reports here:



**2021 - July 2023
Annual Monitoring
Report**

**2024
Annual Monitoring
Report**

Learning from the UK and beyond

The development of the London Surface Water Strategy is being informed by, and aligned to, other UK strategic management plans at a national, regional and local level. This ensures we're comprehensive, supportive and consistent in our work and approaches across London. Additionally, the strategy is being informed by the lessons learnt from a number of other global cities, including Amsterdam, Copenhagen and New York.

Our strategy is being specifically informed by, and aligned to, the Government's 25-year Environment Plan, the Environment Agency's Flood and Coastal Erosion Risk Management Strategy, Thames Water's 25-year Drainage and Wastewater Management Plan, together with other existing strategic plans, reviews and assessments as illustrated on Page 7.

Prioritised alignment

We've prioritised the alignment of our strategy against those aspects of other strategic management plans that, through collaboration with risk management authorities and other stakeholders, are considered to be critical.

Informed by ongoing monitoring

The Strategic Group will continue to monitor the development and progress of international surface water flooding programmes, to apply lessons from their work to London. This includes accessing the C40 Cities network which is a global network of nearly 100 mayors from the world's leading cities¹. The mayors have come together to address the climate crisis through shared knowledge and driving sustainable urban action. The C40 network is Co-Chaired by the Mayor of London, Sadiq Khan.

At the same time, the Strategic Group will closely monitor existing and new UK strategies and plans that may have an impact on our work across London.





UNDERSTANDING THE PROBLEM

What is surface water flooding?

Surface water flooding, also known as flash flooding, is the main flooding risk to London, as identified on London's Risk Register². It occurs when heavy rainfall hits the ground quicker than it can drain or flow away. When rainwater cannot be absorbed into the ground, or overwhelms the drainage systems, it can collect in enough depth to endanger life, flood homes and cause significant local disruption.

Why is it a problem in London?

Our city faces several challenges that increase its risk of surface water flooding. These include its growing population, increasing urbanisation and changing weather patterns.

A changing climate

The increasing and damaging effects of climate change are disrupting the lives and livelihoods of many Londoners. The devastating floods of 2021 were followed in 2022 by a 40°C heatwave that ignited over 1,000 wildfires across the capital. The UK Met Office projects more extreme weather events, and particularly more frequent and intense rainfall for London³, as the climate continues to change.

A growing population

In 2022, London's population hit a new record high of 8.9 million people, and is predicted to reach 9.6 million people by 2035⁴. London is also a huge tourist attraction and one of the world's most visited cities⁵. Increasing visitors and transient communities add to the demand on the city's infrastructure.

Additionally, the increase in major construction projects to support London's growing population continues to transform the city's physical landscape, but can often include materials that don't allow surface water to drain away naturally.

Summer rainfall is projected to become up to 20% more intense and winter rainfall up to 25%

UK Climate Projections (UKCP), The Met Office



Surface water

There isn't one single organisation with overall responsibility for London

Ageing infrastructure and assets

As assets age they become more vulnerable to weather-related impacts, and climate change is accelerating that degradation. London is a historic city with important heritage and infrastructure assets that were not designed to cope with the weather events we're experiencing. For example, parts of Thames Water's drainage network and London Underground are well over a century old. The combination of London's ageing assets and climate change significantly increases London's vulnerability to surface water flooding.

Poor alignment between flood risks and stakeholder boundaries

There isn't one single organisation with overall responsibility for managing surface water in London. The Flood and Water Management Act 2010 designates boroughs as Lead Local Flood Authorities with statutory responsibility for managing surface water flooding, Thames Water with responsibility for sewer flooding, and the Environment Agency with responsibility for main river and sea flooding, as well as the strategic overview of flooding from all sources.

After the 2021 flash flooding events, an independent review

of London's surface water flood risk was commissioned by Thames Water. This included detailed hydrological risk modelling which identified poor alignment between water catchments and organisational boundaries (whether London borough boundaries or other existing partnership boundaries). In our borough boundaries analysis we found that in the vast majority of cases, rainwater crosses borough boundaries before causing flooding, as illustrated on Page 11. As surface water doesn't respect geopolitical or legislative boundaries, London boroughs and other stakeholders, such as TfL and Thames Water, will need to work closely together to address cross-boundary risks.

Additionally, stakeholders have disparate data sets and action plans to tackle surface water flood risk in London. Fragmented data can limit understanding and also the efficiencies that can be delivered through integrated knowledge and working.

Basement occupancy

Basement flooding is a particular hazard in London as a significant number are occupied for residential or commercial purposes. Importantly, we do not currently know how many basement homes there are in the city, as a comprehensive database does not exist. As part of a summer flood awareness

2.5 x Hyde Park lost

The size of green garden space lost every year in London

campaign, we contacted nearly 50,000 basement properties, but the actual number across the city may be much higher. It's estimated that 14,780 London basements in commercial use are at risk of flooding from heavy rain. There are 5,692 basements considered to be at 'high' or 'extreme' flood risk in Westminster alone⁶.

The fact that the 2021 flooding occurred in London during the daytime undoubtedly saved lives. At that time, surface water flooding was not deadly, but it most definitely can be. During the evening of 1st September 2021, Hurricane Ida hit New York City causing unprecedented flooding and 13 fatalities, 11 were people trapped in flooded basement apartments⁷. In June 2022, the Strategic Flood Response Framework for London⁸ set out plans for a basement flooding worst case outcome. It projected up to 40 fatalities and thousands of casualties were likely, if surface water flood risk isn't tackled.

Loss of green spaces

When gardens and other green areas are paved over with impermeable materials that don't naturally drain, this significantly contributes to large volumes of rainwater rapidly gathering in, and around, urban areas during heavy storms. 2010 research indicated that green garden space two and

a half times the size of Hyde Park was being lost in London every year⁹. Clearly, there has also been much development in London since that time. The risk of surface water flooding increases as more green space is paved over or built on.

Vulnerable natural environments

Protecting London's natural environment has never been higher on social and political agendas. Whilst containing a densely populated urban area, London also enjoys a remarkable amount of green and blue space. Green infrastructure, that's the network of green and blue spaces across our city, is a critical solution in helping reduce surface water flood risk. Within London's green infrastructure, there are over 150 local nature reserves and around 30 conservation areas that support protected species and priority habitats.

These natural environments not only help to protect us from surface water flooding, but have far wider benefits for the city. They include helping to improve water quality and supporting the health and wellbeing of our residents and communities. However, London's green infrastructure and its biodiversity are highly vulnerable to the damage caused by surface water flooding.

Borough boundaries analysis

Our analysis found that in the vast majority of cases, London's water catchments require cross-borough collaboration to resolve surface water flooding.



Work in progress

WHAT HAPPENS IF WE DO NOTHING?

Increasing vulnerabilities and wide-ranging risks

In July 2024, the final report from the London Climate Resilience Review was published¹⁰. Commissioned by the Mayor of London, the report stressed that London is ‘underprepared’ for the impact of climate change. It called for ‘urgent action’, identifying surface water flooding as one of London’s main climate risks. The report concludes that without a ‘step change’, surface water flooding is a ‘lethal risk’ to Londoners and particularly to the most vulnerable communities across the city.

Exposed to increasing climate hazards

The findings in the London Climate Resilience Review are drawn upon, and supported by, a range of research and independent reports. These include the Met Office’s climate projections, which warn of storms in London capable of causing surface water flooding that are four times as frequent in the future¹¹.

The Chair of the London Climate Resilience Review, Emma Howard Boyd CBE, is clear that London now requires a collaborative and fast-paced approach to tackle surface water flooding.

Risking the most vulnerable residents and communities

Surface water flooding is undoubtedly devastating for everyone affected, it also has the potential to be life threatening, as experienced in other major cities across the world. The impacts are further compounded in areas of London with a combined sewage and drainage network. During heavy rainfall, these networks can be overwhelmed causing sewers to flood into homes and properties.

Research indicates the impacts of surface water and sewer flooding will be disproportionately felt by London’s most marginalised communities. These, often highly vulnerable communities, are projected to be the

We need to recognise that Londoners now face lethal risks, and a step change is needed

Emma Howard Boyd CBE, Chair, The London Climate Resilience Review



most likely to experience flooding, while having access to fewer resources to recover quickly from the damage and disruption it can cause.

Negative economic and financial impacts

The 2021 flooding events had a huge financial and economic impact on the city. The flooding resulted in extensive damage to homes, properties and infrastructure including schools, hospitals, train stations, shops and restaurants.

The flooding damage and disruption resulted in insurance and reinsurance losses estimated to have totaled £281 million¹². The closures and delays to the London Underground network caused by the 12 July flood event alone resulted in around 197,128 lost customer hours, equating to a financial loss of almost £2m¹³. Based on climate projections, the economic and financial impacts on London will be increasingly frequent.

Damage to the natural environment

The damage and contamination of our city's natural environment from surface water flooding, together with the carbon emission implications of infrastructure replacement and repair, is significant. As previously stated, London's natural environment

plays a critical role in reducing surface water flooding risk. Damaging this environment would increase the risk to lives, homes, properties and infrastructure. It would also reduce, or potentially eradicate, the wider benefits these green and blue spaces provide to our people and communities, including storing carbon, cooling our city, absorbing pollutants, supporting health and wellbeing, as well as encouraging social cohesion.

Exposed to deadly current and future risks

London did not suffer loss of life during the 2021 flash floods, however surface water flooding has been directly responsible for loss of human life in recent years at home and globally. There have been tragic deaths in Liverpool, as well as multiple fatalities in Germany, Copenhagen, British Columbia, Rio de Janeiro, China, South Korea and across America. As climate change gathers pace and projections for severe rainfall in London increase, so too does our city's exposure to the potential lethal risks of surface water flooding.

OVERVIEW OF THE STRATEGY

The London Surface Water Strategy aims to enable and deliver the step-change our city needs to increase resilience and sustainability, as well as improve protection for our most vulnerable. It defines how we can collaboratively plan and deliver solutions across London to reduce the impact of surface water flooding and contribute to outcomes and benefits for all who live, work and visit the city



“ Increasing London’s resilience to surface water flooding through collective action that benefits society and the environment ”

Strategic ambitions



Resilient places



Empowered people



Coordinated delivery

Outcomes

Catchment-partnership approach

Improved resilience by scaling-up strategic action through a collaborative catchment and partnership-based approach

Integrated planning and maintenance

The delivery of strategic action enabled by effective integrated planning and capital maintenance

Individual and collective action

London’s communities are inspired to take individual and collective action to protect themselves and improve their resilience

Effective leadership

Effective and accountable leadership supports the risk management authorities in strategic action and undertaking long-term planning

Evidence-based

Surface water management is supported by a consistent and accessible evidence-base

Diverse investment

Surface water management is supported by diverse financial contributions

Capacity and capabilities

Risk management authorities, stakeholders, and construction supply chains have the necessary capacity and capabilities to manage surface water

Benefits



Thriving and sustainable communities



Health and wellbeing supported



Climate change adaptation



Contribution to net-zero nation



Resilient and sustainable inner and outer city areas and infrastructure



Increased biodiversity



Improved water quality



Improved air quality



Planning gain and sustainable growth



Protected conservation areas and historic buildings

Guiding principles

We will:

- Work collaboratively in partnership to deliver and coordinate integrated solutions
- Organise partnership working and align the planning of strategic action around hydrological catchments
- Collaboratively manage surface water flood risk at the most appropriate scale
- Promote natural solutions that manage surface water at source where practical
- Commit to delivering risk-based action for the most vulnerable
- Drive transformational change through both modification and reinvention

ACHIEVING OUR STRATEGIC AMBITIONS

Three strategic ambitions will help us to achieve our vision for increasing London's resilience to surface water flooding that delivers benefits for society and the environment.



RESILIENT PLACES

What is this strategic ambition?

This ambition aims to make the 'places' in London - our homes, workplaces and infrastructure, more resilient to surface water flooding.

It will look at where the flooding occurs, what causes it to happen, who and what are affected and the strategic solutions needed to address it, both in the short-term and in the future.

The strategy will enable a step change in London's surface water flooding resilience by focussing on the areas and people at greatest risk, and by creating an approach that can be delivered across the whole of the city.

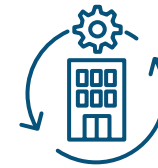
It will create more collaborative opportunities for ambitious catchment-scale solutions. It will also ensure the necessary standards, knowledge and tools are available to risk management authorities for their delivery.

Why do we need this now?

- To scale-up urgent action in response to climate change
- To increase consistency within design processes
- To reflect London's unique landscape and challenges in national standards
- To approach risk consistently within local planning
- To influence a national approach to resilience at both city and community scale
- To secure limited and increasingly expensive space for solutions

Stakeholders and London communities to collaboratively plan and deliver the action needed to increase surface water resilience.

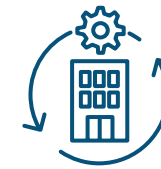




RESILIENT PLACES

How will the strategy do this?

Implement a consistent partnership-approach that facilitates collaborative planning of catchment-scale action and integration into risk management authorities' programmes of work	Support the delivery of high priority local-scale action	Ensure risk management authorities have the necessary standards, knowledge, and tools for the delivery of new infrastructure and surface water management activities
By transitioning to catchment-based partnerships, the strategy aims to focus on addressing the highest priority cross-boundary risks in London more effectively and sustainably. Through coordinated long-term action and the development of new catchment plans, risk management authorities will be able to develop more tailored solutions to meet catchment-specific needs, local objectives. This will also enable them to achieve broader positive outcomes for the city.	The London Surface Water Strategy will empower risk management authorities by providing the strategic support and guidance they need to tackle their priority risk areas, and to carry out their surface water management activities. This approach will ensure fair and effective support and guidance is provided across London, to address the city's diverse challenges and improve surface water resilience at the necessary scale.	Collaborative and catchment-based working will require a consistent and effective approach to the design and development of surface water interventions. The London Surface Water Strategy will drive efforts to standardise processes that will create a more cohesive and resilient approach to managing surface water across the city.
<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Bring together new partnerships around hydrological catchments • Support the development of catchment action plans 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Ensure risk management authorities have access to management and technical support • Align the delivery of local planning activities with strategic priorities 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Seek to consolidate and enhance design standards • Continue to engage with other UK and major global cities to share knowledge on integrated placemaking



RESILIENT PLACES

How will the strategy do this?

Influence related London strategies and planning policy

Achieving long-term surface water resilience requires support from both city-scale and local planning processes. Our ambitious approach is to embed the strategy's guiding principles into statutory planning mechanisms. This includes ensuring their application to local planning is robust and our ambitions are reflected in the next iteration of the London Plan.

We're developing actions that will:

- Identify areas in which planning policy requirements could be enhanced
- Review and update the Critical Drainage Area Framework

Capitalise on opportunities to use strategic development and major landowners to build resilience to surface water flooding

London's growth presents opportunities to integrate surface water interventions into key locations, through new construction, property development, and land management. The strategy will support risk management authorities to leverage these opportunities, with a focus on prioritising nature-based solutions and fostering more collaborative approaches to placemaking.

We're developing actions that will:

- Influence policy to utilise the space provided by strategic development so that flood risk is reduced across neighbouring communities
- Encourage delivery through the development of accreditation system





EMPOWERED PEOPLE

What is this strategic ambition?

This ambition aims to make London's people, as well as its places, more able to prepare, cope and recover from surface water flooding. By empowering people we can increase the resilience of the city.

It will help individuals and communities across London to understand the potential severity of the threat of surface water flooding for them, as well as the actions they can take towards reducing the impact and to support recovery, if it does happen again.

The strategy will motivate individuals and communities to take action to protect themselves, their homes as well as their local areas.

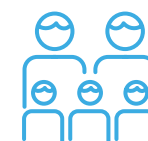
It will encourage the collaborative development of places across London that align the needs of residents with the requirements for new surface water infrastructure, to achieve mutual benefits.

Why do we need this now?

- To raise the public awareness of surface water flood risk and how to reduce it, particularly in vulnerable communities
- To educate on the effects of paved spaces and encourage action
- To emphasise the severity of basement flood risk and encourage action to reduce its impact if it does happen
- To create community ownership, empowerment, and identify local champions
- To motivate individual and community action around surface water flooding preparedness, prevention and recovery

**London's
residents and
communities
to actively
contribute to
increasing
long-term
surface water
resilience.**





EMPOWERED PEOPLE

How will the strategy do this?

Improve public awareness of surface water flood risk	Motivate personal action	Increase community involvement in delivering resilience outcomes
<p>Engaging with Londoners is essential to foster a proactive and informed community that can become actively involved. The strategy aims to empower every resident, especially those in more vulnerable communities, who are also more likely to live in flood-prone areas. It will provide comprehensive information and encourage understanding of flood risks, precautionary and recovery actions.</p>	<p>Every intervention to manage surface water is beneficial, whether at home or in the community. The strategy will empower residents to consider what they can do as individuals to make a positive difference, such as installing water butts and avoiding paving-over their front gardens. The strategy will provide the knowledge and tools to empower individuals to take personal responsibility and actively contribute to enhancing surface water resilience across the city.</p>	<p>Increasing community involvement in projects can be challenging but it's essential to ensure the long-term sustainability of surface water interventions across London. The strategy aims to improve community involvement through enhancing representation and encouraging more active participation in the development of surface water solutions.</p>
<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Guide the provision of informative, targeted, and consistent information • Formulate a standard toolkit for community engagement 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Provide easy access to practical and personalised guidance • Ensure more vulnerable residents can better protect their properties 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Identify community stakeholders for inclusion in strategic planning • Secure commitments to deliver local community-focused projects, such as Community Flood Action Plans



COORDINATED DELIVERY

What is this strategic ambition?

This ambition aims to create a comprehensive framework that supports risk management authorities in the coordinated delivery of the London Surface Water Strategy.

It will include establishing governance for the delivery of the strategy, providing consistent and accessible evidence to support planning and development, consolidating diverse funding options, and ensuring risk management authorities and supply chains have the capacity to deliver strategic and long-term actions.

Combined, these components will enable the strategy's vision, outcomes and wider benefits to be fully realised for London.

Why do we need this now?

- To consolidate leadership and governance among risk management authorities
- To provide assurance to sustain action over the long-term
- To prioritise resources to address London-wide priority risks
- To address workforce recruitment and retention challenges, as well as technical skills gaps
- To build the case for increased funding and investment
- To identify better ways to make funding more accessible for smaller projects
- To identify opportunities and costs relevant to different London landscapes and communities
- To improve the sharing of surface water flooding data and information
- To coordinate local data to support the scaling-up of nature-based solutions retrofit

Stakeholders and London communities to gain the support and skills they need to implement the strategy.





COORDINATED DELIVERY

How will the strategy do this?

Provide supportive governance and assure the delivery of strategic action through programme support and oversight	Define a London surface water resilience standard	Consolidate existing data and information and coordinate the development of new data and information to support planning and funding activities
To deliver the strategy and realise the step change needed, ongoing strategic leadership is required to co-ordinate activity, ensure delivery and monitor progress. The strategy will establish a robust leadership framework for the Strategic Group to continue to provide comprehensive administrative and oversight support, ensuring a cohesive approach to building resilience and the timely execution of strategic actions.	Identifying the right solutions can be difficult due to the absence of a national approach to measuring resilience. The strategy will support the review of best practice and work with policy makers, risk management authorities, and wider stakeholders to establish a London standard to guide the development of catchment action plans and support local initiatives.	Effective, consistent, and easily accessible evidence is fundamental to planning and implementing solutions. It enables the consideration of critical infrastructure, utilities, and cost implications. The strategy will oversee a collaborative effort to gather essential data, information, and systems by leveraging new data sources and emerging advanced technical capabilities.
<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Identify and secure funding to maintain operation of the Strategic Group • Ensure continued collaboration on, and strategic oversight of, surface water flooding in London 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Encourage consideration of wider social and environmental benefits • Secure broad agreement for applying a shared resilience standard 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Secure and maintain pan-London data sharing agreements • Procure and manage a development programme for new datasets and tools



COORDINATED DELIVERY

How will the strategy do this?

Make access to existing funding more efficient, identify and leverage other funding sources. Including making the case for further private and green investment	Manage and coordinate the use of the workforce to deliver strategic actions	Develop and retain the necessary critical skills and technical capacity
<p>While considerable funding is available for surface water flooding activities accessing it can be challenging. The strategy aims to enhance access to existing funds by sharing knowledge and providing specialist support. Through the strategy, we'll investigate options for more private and green finance, and the value of pooling investment for strategic priorities.</p>	<p>Risk management authorities' competing priorities and lack of resources, further compound the challenges of addressing surface water flood risk. The strategy will establish a mechanism to support resource sharing, enabling us to tackle strategic priorities more efficiently. This will involve uniting stakeholders to manage and coordinate resources based on agreed priorities, streamlining roles and eliminating duplication of efforts.</p>	<p>To achieve the aims of the strategy, we'll need many more competent people to address the current, industry-wide shortage of skilled and experienced professionals. The strategy will bridge this gap by providing affordable training for risk management authorities and developing mechanisms to manage city-wide resources. It fosters collaboration at its heart and will encourage workforce growth through professional and academic initiatives.</p>
<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Identify capacity of specialist resources to support access to funding opportunities • Support the application and extension of market-based approaches 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Secure agreements on the allocation of shared resources • Maintain programme of projects to clarify critical resource requirements 	<p>We're developing actions that will:</p> <ul style="list-style-type: none"> • Understand current and future projected workforce capacity • Explore the viability of a London-wide framework contract for consultants

OUTCOMES AND BENEFITS

What will good look like?

In the future, London will be resilient to surface water flooding helping its residents, communities and natural environment to thrive.

Less severe impacts and quicker recovery

This doesn't mean that London won't have any surface water flooding. Instead, intense rainfall will result in occasional and localised flooding in the city, rather than frequent, widespread, flooding. London's most vulnerable people and high flood risk areas will be less likely to experience flooding and more able to recover quickly from any flooding that does occur. To enable this, integrated stakeholder processes and actions will be in place, together with insurance industry support, making the return to normal more straightforward.

Prioritised nature-based solutions

Green solutions will be prioritised with widespread installation of 7,000 hectares of SuDS across the city, targeted in locations where they will be most effective. SuDS

installation will also be made easier and more affordable for organisations, communities and residents through new mechanisms, such as a streetworks SuDS marketplace. The focus on nature-based solutions will have important co-benefits, including improving the look and feel of the city, and supporting biodiversity.

Informed and empowered people and communities

Londoners will have increased awareness and understanding of surface water flooding risks. They'll feel empowered to reduce their personal risks, know who to contact in an emergency and how to act to make recovery quicker and more manageable.

Communities will be aware of the property flood resilience measures that are available and appropriate for their homes and businesses.



Some measures, such as property-level resilience and flood barriers, will slow the speed of water entering homes. Other measures, such as placing appliances and raising electrical sockets above flood level, will reduce the damage that occurs if flooding does happen. Communities will also be aware of the support and funding available to purchase and install these measures.

There will be widespread activities and action at an individual and community level. The strategy will enable groups to be active right across London with Community Flood Action Plans. Their plans will be developed inclusively and individuals and communities will be able to see how their actions are increasing surface water flood resilience in their local areas.

To help manage sewer flooding in areas with a combined drainage and sewage network, small pumping units will be installed in high-risk basement properties. They will transfer sewage and rainwater from private drains to the main sewer network.

Simplified collaborative working and funding

Risk management authorities and other key stakeholders will feel the positive effects of cross-boundary collaborative relationships and integrated working. Partnership arrangements will be simplified, strategic plans will be integrated and funding channels will be more accessible. Shared planning, resources and delivery will reduce overlap, increasing operational and financial efficiency.

A greater focus on surface water flood risk management will increase the availability of a skilled, green workforce. Skills will range from urban designers and engineers, to maintenance contractors, who will have technical capacity to support London as it evolves.



Outcomes and benefits from the London Surface Water Strategy



Resilient people, places and infrastructure

Climate change adaptation

Nature-rich city

Empowered and sustainable communities

Health and wellbeing supported

Integrated partnerships

Accessible funding

Green urban designers and workforce

Reduced stress on drainage networks

Community Flood Action Plans

Green economy boost

Planning gain and sustainable growth

Improved air and water quality

Increased biodiversity

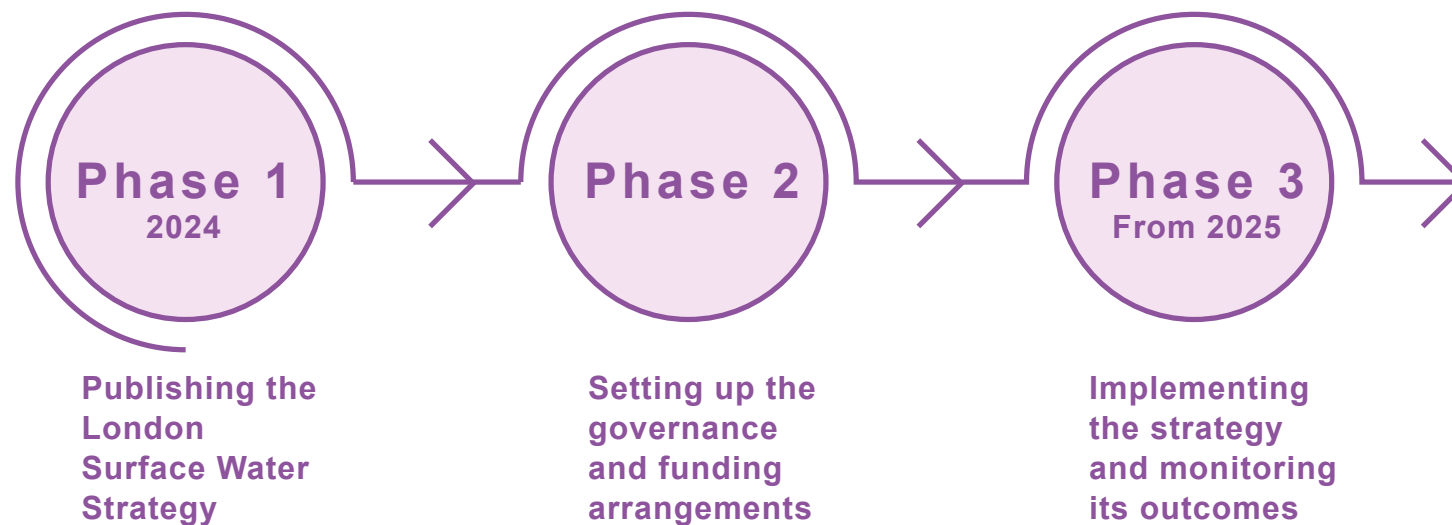
Climate change mitigation

LOOKING FORWARD

Guiding and delivering the strategy

The Strategic Group greatly appreciates the commitment, sharing and enthusiasm demonstrated by all contributors throughout the strategy development process to date. The London Surface Water Strategy will continue to move forward through the following three phases. We look forward to working together further to guide and deliver the strategy across London from 2025.

London Surface Water Strategy



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The information provided to develop this document is correct as of 31 July 2024, and has the formal support of the Strategic Group.

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