

London Borough of Wandsworth Local Flood Risk Management Strategy

Summary

2016 - 2022



Introduction

In response to the severe flooding across large parts of England and Wales in summer 2007, the Government enacted the Flood and Water Management Act 2010 ('the Act') and the Flood Risk Regulations 2009 giving local authorities new powers to manage local flood risk in a more co-ordinated way. As a Lead Local Flood Authority our, Wandsworth Council's, responsibilities relate to 'local' flood risk from surface water, groundwater and small rivers, streams and ditches.

We have a legal requirement under the Act to develop, maintain, apply and monitor a Local Flood Risk Management Strategy ('the Strategy') that:

- . Provides an overview of flood risk management work being undertaken and planned throughout the Borough,
- Explains how partners are working together to reduce flood risk, and,
- Clearly sets out which organisations are responsible for different types of flooding in the Borough to ensure a common understanding of roles, responsibilities and priorities.

The increase in extreme weather conditions, the presence of existing buildings in areas of flood risk and limited public funding means that we cannot prevent all flood incidents happening in the Borough. However, through the strategy we can coordinate our services so that flood risk is reduced and the impact of any flood incidents is minimised. The strategy also provides us with an opportunity to work together with local residents, businesses and stakeholders to minimise risk and prepare for the effects of climate change.

Nationally, around 5.2 million properties are at risk of flooding; 1.4 million are at risk from rivers or the sea, 2.8 million at risk from surface water and 1 million are at risk from both.
(Environment Agency, 2009)

This document is a summary of the London Borough of Wandsworth Strategy, setting out our plan for the management of local flood risk across the Borough during the period 2014 – 2022.

The full Local Flood Risk Management Strategy is available on our website:
http://www.wandsworth.gov.uk/info/200320/emergency_planning/105/flooding

Development of the Strategy

We have developed the Strategy in partnership with the Environment Agency and Thames Water, as well as local communities and neighbouring boroughs. It has been informed by local, regional and national policy, including the Environment Agency's National Strategy for flood and coastal risk management, to ensure a coordinated approach to flood risk management within Wandsworth.

A community engagement exercise was undertaken between December 2013 and March 2014. The outcomes from this have been used to shape the development of the Strategy and flood risk management priorities.

The purpose of the Strategy

The aim of the Strategy is to work in partnership with local communities, and organisations responsible for managing flooding, in order to better understand and reduce local flood risk in Wandsworth where it is economically, technically, socially, and environmentally feasible to do so. To achieve this aim a number of key objectives have been identified.

London Borough of Wandsworth Strategy Objectives

1. Further understand the risk of flooding across the London Borough of Wandsworth,
2. Encourage appropriately mitigated development across the London Borough of Wandsworth,
3. Seek to identify funding and resources available for flood risk management,
4. Proactively manage sources of local flooding to homes, critical infrastructure and transport networks by working in partnership with others,
5. Work with Risk Management Authorities to raise awareness of flood risk with communities, residents and businesses and how they can better protect themselves and their property, and
6. Use knowledge of flood risk to inform the emergency response to flooding within the London Borough of Wandsworth.

How are we working with others?

Several organisations have a role to play in minimising the risk and impact of flooding in the Borough. The Strategy clarifies the responsibilities of the different organisations involved in flood risk management including how they work together and what you should expect of them.

Our responsibilities (Wandsworth Council)

We have a number of roles and responsibilities relating to flood risk management including:

- **As the Lead Local Flood Authority and a Risk Management Authority** – we have legal duties and powers to investigate significant flooding events, maintain a register of significant flood risk assets and manage flood risk from ordinary watercourses. LLFA's are a Statutory Consultee for Major Planning Applications with surface water. In considering planning applications, local planning authorities should consult the relevant Lead Local Flood Authority on the management of surface water; satisfy themselves that the proposed minimum standards of operation are appropriate and ensure through the use of planning conditions or planning obligations that there are clear arrangements in place for ongoing maintenance over the lifetime of the development
- **As the Highways Authority** – ensuring that highways are drained of surface water and where necessary maintain all drainage systems,
- **As an Emergency Responder** - along with other organisations, developing emergency plans and business continuity plans for use during an emergency,
- **As the Local Planning Authority** - to consider flood risk in the development of the Local Plan, to be the decision maker on flood risk for planning applications for development and to undertake a Strategic Flood Risk Assessment to inform strategic land use planning, and,

- **As an Asset Owner** – as the asset owner for flood risk assets on our own land, we have responsibility to manage and maintain these to ensure they operate as required and do not increase flood risk.

Risk Management Authorities

Aside from ourselves, Risk Management Authorities in Wandsworth include the Environment Agency, Thames Water (as the sewerage undertaker), Transport for London and neighbouring Boroughs, where flood risk crosses administrative boundaries.

The multi-agency South West London Strategic Flood Group has been established that includes representatives from each of the six boroughs in the area, the Environment Agency and Thames Water. The Strategy has been developed through the Partnership Group to ensure that a joined up approach to flood risk management is adopted across South West London.

Other flood risk management organisations

There are a number of other relevant organisations that have a key role to play in managing flood risk in the Borough, e.g. Network Rail and Natural England. These organisations will be involved as required to support flood alleviation projects, or to provide information, support and input on a project-by-project basis.

Public, businesses and community groups

The public, community groups and businesses also have a role to play in the management of flood risk. The Strategy highlights that people and properties in known flood risk areas should be prepared for flood incidents. Anyone who owns land adjoining a watercourse, known as a Riparian Owner, also has certain responsibilities to ensure the unobstructed flow of water.

Our aim is that the public and local community groups are aware of the flood risks they face, take action to reduce their vulnerability to flooding, and are actively involved in flood risk management. To achieve this vision, we will:

- Raise awareness of local flood risk and encouraging local communities to take action, and,
- Target communities at greatest risk as part of flood studies or development of a flood alleviation scheme.

Flood risk in the Borough

Our responsibility, and the focus of the Strategy, is the management of 'local' flooding. By this we mean flooding from:

- **Surface water** – this occurs when heavy rainfall cannot be absorbed into the ground or enter the drainage systems,
- **Ordinary watercourses** – this occurs when smaller watercourses, such as streams, ditches, drains, cuts, dykes and sluices cannot hold the volume of water flowing through them and overflow their banks onto surrounding land, and,
- **Groundwater** – this occurs when water levels in the ground rise above surface levels which is most likely to occur in areas underlain by permeable rocks, and is likely to occur after seasonal periods of prolonged rainfall.



Wandsworth Town, July 2007

However, the most severe flooding is often caused when different types of flooding sources combine. Whilst developing the Strategy we have considered the influence of river, sewer and other forms of flooding and we are working in partnership with the Environment Agency, Thames Water and other stakeholders where there are combined sources of flooding.

Other sources of flooding include:

- **Sea (tidal)** – this occurs when water levels from the sea overtop or breach flood defences. Within Wandsworth, the River Thames is tidally influenced as it passes the northern border of the Borough. The Thames Tidal Defences however protect the Borough from tidal flooding through a combination of raised defences and the Thames Barrier.
- **Rivers** – this occurs when a watercourse cannot cope with the volume of water draining into it and overflows its banks onto surrounding land. Large ('Main') rivers in Wandsworth include the River Wandle, Beverley Brook, River Graveney and River Thames.
- **Sewer** – this occurs when surface water or combined (surface water and foul) sewers are overwhelmed by heavy rainfall, which exceeds the capacity of the sewer drainage system, the system becomes blocked by debris or sediment, and/or the system surcharges due to high water levels in receiving watercourses, and,
- **Reservoirs or artificial lakes** – this occurs when reservoirs which hold large volumes of water above ground water, overtop i.e. cannot contain the amount of water flowing into them, or when part of the reservoir fails resulting in a fast release of water. Within Wandsworth there are artificial lakes located in King George's Park and Roehampton University. There is the potential for water from Wimbledon Park Lake, a designated Reservoir located in the London Borough of Merton, to affect the Borough.

Historic flooding

Historically, Wandsworth has been affected by flooding from surface water, rivers, groundwater and sewers.

Over recent years, severe surface water flooding has been experienced across the area causing damage to property and disruption to businesses and services. The most significant recent flooding event occurred in the summer of July 2007 when heavy rainfall caused flooding from surface water, rivers and sewers to combine to impact properties across the Borough. This particularly affected the areas of Wandsworth Town, Clapham Junction, Battersea Park, Wandsworth Common and Upper Tooting.

Major flooding from rivers has not occurred in Wandsworth since 1928, when flooding occurred along the banks of the River Thames affecting Battersea and Nine Elms.



Wandsworth Town, July 2007

Risk of flooding

Wandsworth is at greatest risk of flooding from surface water, sewers, main rivers and groundwater sources. It is predicted that this risk will increase in the future; influenced by climate change and increasing pressures on development and housing need. This does not, however, indicate that flood risk from other sources is insignificant.

Risks from river flooding associated with the Beverley Brook, River Wandle and River Graveney are relatively well understood and have been managed at a catchment level for many years by the Environment Agency. These risks are mapped and delineated into Flood Zones, which are

available to view through the Environment Agency's website and are used to guide planning decisions. However, flood risk from local sources is less well understood; these are typically very localised events, which are often difficult to predict, and records from these events, until recently, have not been recorded.

Parts of Wandsworth have a particular susceptibility to surface water and sewer flooding due to the urbanised nature of the area and the complexity of the sewer system leading to a high potential for constrictions, blockages and failure.

Surface water flood maps published by the Environment Agency in December 2013 show that across Wandsworth up to 2,190 residential properties could be at high risk of surface water flooding. Areas identified to be particularly susceptible to surface water flooding include Balham, Summerstown, Wandsworth Town, Tooting Graveney, Putney and South West Battersea.

Residential Properties at Risk of Surface Water Flooding in Wandsworth:

High Risk	2,190 Houses
Medium Risk	6,703 Houses
Low Risk	24,918 Houses

Based on updated Flood Map for Surface Water (Environment Agency, December 2013)

Flood risk from groundwater is less well understood and can be particularly difficult to predict due to the 'hidden' nature of the source of flooding and relatively longer period as the water table rises and emerges, often several days or weeks after heavy rainfall has fallen and river levels have dropped. Based on available data the areas of Putney, Wandsworth Town southwards to

Summerstown, Balham to Tooting Bec and Battersea are predicted to be at greatest risk, where permeable deposits (which usually consist of sediments such as gravel, sand, silt and clay) associated with the river valley are located.

Non Residential Properties at Risk of Surface Water Flooding in Wandsworth:

High Risk	548 Businesses 17 Education Facilities 7 Hospital / Surgery/ Care Home 1 Emergency Service Facility
Medium Risk	1,161 Businesses 52 Education Facilities 24 Hospital / Surgery/ Care Home 4 Emergency Service Facilities
Low Risk	2,855 Businesses 123 Education Facilities 72 Hospital / Surgery/ Care Home 7 Emergency Service Facilities

Based on updated Flood Map for Surface Water (Environment Agency, December 2013)

Sewer flooding is recorded and mapped by Thames Water as the sewerage undertaker in Wandsworth. Climate change is anticipated to increase the potential risk from sewer flooding as summer storms become more intense and winter storms more prolonged. This combination is likely to increase the pressure on the existing efficiency of sewer systems, thereby reducing their design standard and leading to more frequent localised flooding incidents.

How will we deliver local flood risk management?

The Strategy sets out how we will deliver the objectives of the Strategy over the next six years. A number of measures and actions have been identified to achieve this, and these are set out in the Action Plan that accompanies the Strategy. These will help us to improve our understanding of flood risk across the Borough and inform the way we reduce this and plan for resilience against the impacts of climate change.

In delivering flood risk management, we have the opportunity to deliver wider environmental objectives and requirements, as set out in European Legislation including the Water Framework

Directive. A Strategic Environmental Assessment and a Habitats Regulations Assessment Screening exercise has been undertaken to inform the Strategy development.

Objective	How we will deliver the objective
<p>Further understand the risk of flooding across the London Borough of Wandsworth</p>	<ul style="list-style-type: none"> • Update and utilise existing flood studies to inform the understanding of flood risk across the Borough and how climate change will affect this in the future. □ Undertake flood investigation reports under Section 19 of the Flood and Water Management Act 2010, engaging with the Risk Management Authorities. □ Pursue opportunities for undertaking further detailed investigation into local sources of flooding within the Borough, working with stakeholders and Risk Management Authorities. □ Continue on-going programme of investigations to understand flood risk. □ Improve understanding of groundwater flood risk and flooding mechanisms across the Borough. □ Improve understanding of combined flood risk, e.g. surface water and sewer or river. □ Continue to maintain a central register of flooding incidents. □ Encourage residents, business owners and stakeholders to report incidents of flooding to the council to contribute to the on-going assessment of flood risk across the Borough.
<p>Encourage appropriately mitigated development across the London Borough of Wandsworth</p>	<ul style="list-style-type: none"> □ Ensure that local planning policy sets out the minimum requirements for flood risk mitigation measures within development, including areas at risk of local sources of flooding. □ LLFA's are a Statutory Consultee for Major Planning Applications with surface water. In considering planning applications, local planning authorities should consult the relevant Lead Local Flood Authority on the management of surface water; satisfy themselves that the proposed minimum standards of operation are appropriate and ensure through the use of planning conditions or planning obligations that there are clear arrangements in place for ongoing maintenance over the lifetime of the development. □ Proactively encourage the use of SuDS through planning requirements within the Local Plan and Core Strategy, aiming for the incorporation of SuDS as an integral part of development.
<p>Seek to identify funding and resources available for flood risk management</p>	<ul style="list-style-type: none"> □ Identify and monitor funding sources, internal and external, available for local flood risk management activities. □ Seek contributions from other to fund flood risk management activities. □ Undertake a review of the resources available within the council for flood risk management. □ Maintain positive relations and explore partnership working opportunities with residents, businesses and Risk Management Authorities to deliver flood risk management.
<p>Proactively manage sources of local flooding to homes, critical infrastructure and transport networks by working in partnership with others</p>	<ul style="list-style-type: none"> □ Continue to hold regular meetings of the Wandsworth Flood Risk Management Team to understand and manage local flood risk across the Borough. □ Seek opportunities to work with council departments to deliver local flood risk management benefits, identifying opportunities to maximise resources and funding available. □ Continue to support the South West London Flood Group and seek opportunities for collaborative working, sharing of best practices and cross boundary management of flooding. □ Continue to update and maintain the register of Flood Risk Assets. □ Identify potential schemes to manage flood risk taking a risk based approach.
<p>Work with Risk Management Authorities to raise awareness of flood risk with communities, residents and businesses and how they can better protect themselves and their property</p>	<ul style="list-style-type: none"> □ Provide information on flooding and guidance on managing their flood risk through local communication channels: Brightside magazine, the Council website, social media etc. □ Pursue opportunities to provide information on flooding and mitigation through public events, working with local groups where possible. □ Encourage residents and businesses to register with the Environment Agency to receive flood warnings and flood alerts for flooding from rivers. □ Work with known community groups in the Borough to understand and improve local coordination and management of flooding.
<p>Use knowledge of flood risk to inform the emergency response to flooding within the</p>	<ul style="list-style-type: none"> □ Utilise historical flood information and surface water mapping to inform flood response. □ Develop a strategy to ensure the necessary response is in place upon receipt of a flood alert. □ Continue to update the Multi-Agency Flood Plan with information of local flood sources.

Objective	How we will deliver the objective
London Borough of Wandsworth	<input type="checkbox"/> Understand and clarify, where required, the preparation and response of other Risk Management Authorities to flooding.

How will we prioritise flood risk management actions?

It is not possible to prevent all flooding, and with limited resources and funding it is not possible to carry out work in every area with flood risk. The approach must be proportionate and risk based and all authorities have to ensure that environmental consequences are taken into account.

Projects are likely to fall under three broad categories:

- Schemes with highest eligibility for national funding,
- Local priorities with lower eligibility for national funding, and,
- Ongoing programmes of work and maintenance schedules.

As our understanding of flood risk improves and evidence is forthcoming specific mitigation schemes and activities will be developed to address flood risk in those areas at greatest risk, where funding is available.

How will flood risk management be funded?

To date, flood risk management activities in the Borough have primarily been funded through central government grants. However, the current economic climate places significant pressures on these funding sources and in the future there will be greater emphasis on us to fund activities and schemes from our own or alternative local sources of funding.

Since April 2012, flood risk management projects funded by Government relate directly to the number of households protected, damage prevented and other benefits such as the environmental or business benefits that will be delivered. We are developing our understanding of areas in Wandsworth that have the highest eligibility for national funding, and to date have successfully secured funding to investigate flood risk in the higher risk area of Clapham Junction.

In the future we will need new ways of working to make sure we can successfully reduce the risk of flooding as well as finding new ways to pay for the improvements. Whilst it may be possible to fully pay for some projects using available national sources of funding, it is likely they will require a wider range of funding sources (including contributions from local communities and businesses as beneficiaries). The Strategy provides detail on the additional funding options that will be considered in the Borough, including seeking contributions from developers.

What happens next?

Although the Strategy is for the period up to 2022, we believe that continued monitoring and review are essential to ensure that flood risk management is responsive to changes. This is especially important in the early years when there are expected to be new requirements for sustainable drainage, changes in funding and design of flood management schemes and improvements in our knowledge of flood risk across the Borough. We will regularly review the Strategy following adoption to ensure that it remains relevant and report any updates via our website.

For further information on the Strategy please visit our website at:

http://www.wandsworth.gov.uk/info/200320/emergency_planning/105/flooding