

London Borough of Merton Local Flood Risk Management Strategy

Summary

2014 - 2020



Introduction

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

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)

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 within the Borough.

Additionally, as London lies within a nationally defined Flood Risk Area, under the Regulations all 33 London Boroughs and Surrey County Council must prepare Flood Risk Management Plans (FRMPs) covering 'local' sources of flooding. At the same time the Environment Agency must prepare FRMPs covering flooding from main rivers, the sea and reservoirs. These are being prepared at river basin district level.

To ensure coordination between the different documents, the Strategy has been produced in partnership with the Environment Agency to comply with the Regulations and to align and integrate the findings of the Strategy with the wider river basin and FRMP objectives.

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.

This document is a summary of the London Borough of Merton Strategy, setting out our plan for the management of local flood risk across the Borough during the period 2014 - 2020.

The full Local Flood Risk Management Strategy is available on our website:

<http://www.merton.gov.uk/environment/flooding/lfrms.htm>

Development of the Strategy

The Strategy has been developed in partnership with the Environment Agency and Thames Water, as well as local communities and neighbouring boroughs to comply with the requirements of the Regulations as well as the Act.

The Strategy has been informed by local, regional and national policy, including the Environment Agency's National Strategy for flood and coastal risk management, and the draft Thames River Basin District FRMP to ensure a coordinated approach to flood risk management within Merton.

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



Flooding of Raynes Park Railway Bridge, July 2007

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 Merton 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 Merton Strategy Objectives

1. Identify areas at highest risk of flooding from local sources and develop a prioritised action plan in line with the principles of the Strategy,
2. Work with Risk Management Authorities and stakeholders to identify ways of managing flood risk in those areas at greatest risk within the borough,
3. Work with planners and developers to ensure no increase in risk of flooding from new development,
4. Maximise available resources and funding to target those areas at greatest risk,
5. Prioritise maintenance activities to reduce surface water flooding, and,
6. Advise communities, residents and businesses on the level of flood risk affecting them and how they can better protect themselves and their property.

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 (Merton 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,
- **As the Highway Authority** – ensuring that highways are drained of surface water and where necessary maintain highway drainage systems before the connection to the sewer network,
- **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** - 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 elsewhere.

Risk Management Authorities

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

The multi-agency South West London Strategic Flood Group has been established and includes representatives from each of the six boroughs in the area, the Environment Agency and Thames Water. The Strategy has been developed through this Partnership Group to ensure that a joined up approach is adopted throughout 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, maintenance of the beds and banks and clearance of debris.

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 through 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 after seasonal periods of prolonged rainfall.



Ordinary watercourse in Morden Hall Park

However, the most severe flooding is often caused when different sources of flooding combine. Whilst developing the Strategy we have considered the impact of river, sewer and other forms of flooding and we are working in partnership with the Environment Agency and local water and sewerage companies where there are combined sources of flooding.

Other sources of flooding include:

- **Rivers** – this occurs when a watercourse cannot cope with the volume of water draining into it or becomes blocked by debris and overflows its banks onto surrounding land. Large ('main') rivers in Merton include the River Wandle, River Graveney, Pyl Brook and Beverley Brook,
- **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** – this occurs when reservoirs, which hold large volumes of water above ground, overtop, i.e. cannot contain the amount of water flowing into them, or when part of the reservoir acting as a dam fails, resulting in a fast release of water.



Wimbledon Park Lake is a designated reservoir

Historic flooding

Historically, Merton has been affected by flooding from surface water, rivers, groundwater and sewers. The most recent significant 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, particularly within the areas of Raynes Park, West Barnes, Colliers Wood and South Wimbledon.

Over recent years, surface water flooding has been experienced across the area causing damage to property and disruption to businesses and services. Fortunately, the majority of the flooding has been limited to local roads, gardens and sports grounds. Extensive rainfall was experienced most recently in the winter of 2013 /2014; however, despite long periods of heavy rainfall and high groundwater levels, there were no reported incidents of flooded properties, with flooding restricted to roads and gardens.

Major flooding from rivers has not occurred in Merton since 1968, when extensive flooding occurred along the banks of the Pyl Brook and the Beverley Brook, in the south west of the Borough around West Barnes. However, high water levels in rivers can impact flooding from other sources. This was realised in 2007, when extensive flooding occurred as a result of high water levels in the Beverley Brook and Pyl Brook blocking outfalls and causing water to back up in the sewer drainage system and flood the Raynes Park area.



Surface water flooding in Hillcross Avenue, July 2007

Risk of flooding

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

Risks from river flooding associated with the Beverley Brook, Pyl 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 shown as Flood Zones, which are used to guide planning decisions. However flood risk from local sources is less well understood; these are typically localised events which are often difficult to predict.

Residential Properties at Risk of Surface Water Flooding in Merton

High Risk	999 Houses
Medium Risk	3,743 Houses
Low Risk	17,611 Houses

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

Parts of Merton have a particular susceptibility to surface water due to the urbanised nature of the area. The most recent information published by the Environment Agency shows that areas identified to be particularly susceptible to surface water flooding include West Barnes, Raynes Park, Colliers Wood, South Wimbledon, Cottenham Park and East Mitcham.

Non-Residential Properties at Risk of Surface Water Flooding in Merton

High Risk	161 Businesses
	14 Education Facilities
	1 Hospital / Surgery/ Care Home
Medium Risk	519 Businesses
	29 Education Facilities
	7 Hospital / Surgery/ Care Home
	3 Emergency Service Facilities
Low Risk	1,565 Businesses
	77 Education Facilities
	35 Hospital / Surgery/ Care Home
	6 Emergency Service Facilities

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

Flood risk from groundwater is less well understood than that from surface water or rivers. Groundwater flooding can be difficult to predict due to the 'hidden' nature of the source of flooding and the relatively longer period of onset, 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, areas at greatest risk are located in the vicinity of permeable deposits associated with the river valleys. These include areas of Mitcham, Collier's Wood, central Merton, West Barnes, Raynes Park, South Wimbledon and Cottenham Park.

There are a number of areas at higher risk of flooding from ordinary watercourses across the Borough. Typically, these are where the watercourses are located in close proximity to residential properties and / or sections of the watercourses are culverted, as these locations are most vulnerable to blockages. West Barnes and Raynes Park contain a number of watercourses that could present a flood risk to nearby properties, should blockages arise.

Based on historical records there is not considered to be a significant risk from sewer flooding across the Borough, as the majority of Merton is served by separate foul and surface water sewers. However, climate change is anticipated to increase the pressure on the existing sewer system as summer storms become more intense and winter storms more prolonged which could lead to more localised flooding incidents in the future.

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 help 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.

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 at risk of flooding. 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.

Objective	How we will deliver the objective
<p>Identify areas at highest risk of flooding from local sources and develop a prioritised action plan in line with the principles of the Strategy</p>	<ul style="list-style-type: none"> • Facilitate reporting of flood incidents by communities, residents and businesses • Maintain a centralised database of flooding incidents • Improve understanding of groundwater flood risk and flooding mechanisms across the Borough • Review and maintain the Merton Local Flood Risk evidence base • Pursue opportunities for undertaking further detailed investigation into local sources of flooding within the Borough • Develop and maintain a prioritised Action Plan for Local Flood Risk Management Activities, in line with available funding • Develop and maintain a defined process for designating structures which have an impact of local flood risk
<p>Work with Risk Management Authorities and stakeholders to identify ways of managing flood risk in those areas at greatest risk within the Borough</p>	<ul style="list-style-type: none"> • Establish effective communication, data sharing and flood risk management arrangements with flood Risk Management Authorities and other stakeholders • Define a clear set of criteria and protocol outlining when and how a flood incident will be investigated • Continue to support the South West London Flood Group and seek opportunities for collaborative working and sharing of best practice across South West London Boroughs • Continue to hold cross-departmental meetings to understand and manage local flood risk across the Borough • Monitor and update the Multi-Agency and Severe Weather Flood Plans with information on local flood sources
<p>Work with planners and developers to ensure no increase in risk of flooding from new development</p>	<ul style="list-style-type: none"> • Set up the SuDS Approving Body (SAB), when enacted, in line with the Flood and Water Management Act 2010 to ensure the appropriate implementation of SuDS within new developments • Review policies in strategies and plans in line with emerging flood risk evidence
<p>Maximise available resources and funding to target those areas at greatest risk</p>	<ul style="list-style-type: none"> • Identify and review funding streams available for flood risk management within the Borough • Identify beneficiaries for schemes and measures and seek opportunities for partnership funding from national, regional and local funding sources • Seek opportunities to work with council departments to deliver local flood risk management benefits, to maximise resources and funding available
<p>Prioritise maintenance activities to reduce surface water flooding</p>	<ul style="list-style-type: none"> • Maintain and regularly update Merton's Flood Risk Asset Register • Review ongoing gully cleansing regime for higher risk areas, where funding is made available • Advise Riparian Owners on their rights and responsibilities and ensure inspections, maintenance and enforcement of flood risk assets is undertaken, where required.
<p>Advise communities, residents and businesses on the level of flood risk affecting them and how they can better protect themselves and their property</p>	<ul style="list-style-type: none"> • Raise awareness of the flood risk in Merton and provide information on what actions residents and businesses can undertake themselves • Liaise directly with communities and businesses to encourage use of flood resilience measures • Work with the Environment Agency to encourage residents and businesses to sign up to Flood Alerts and Warnings • Consider innovative ways to raise awareness, through close liaison with the Council Communications Team • Raise profile of wider benefits of flood risk management activities to residents and businesses

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 Merton that have the highest eligibility for national funding. To date we have been allocated funding to investigate flood risk in the higher risk areas of Raynes Park, West Barnes, Colliers Wood, East Mitcham, Cottenham Park and Seeley Road through both national and local sources of funding, including the Drain London project, administered by the Greater London Authority.

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 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 developers, local communities and businesses as beneficiaries). The Strategy provides detail on the additional funding options that will be considered in the Borough.

What happens next?

The draft Strategy will undergo a period of public consultation in partnership with the Environment Agency's draft Thames River Basin District FRMP. The consultation on these plans is expected to run for 3 months from the end of September 2014 to the end of December 2014. The consultation offers residents, businesses and risk management stakeholders the opportunity to provide feedback on both these plans, covering all sources of flood risk in Merton.

Following the public consultation period, we will consider what you have told us and will use it to update the Strategy, where necessary. We will then adopt the Strategy and use it as the basis for local flood risk management. The final Strategy will be available on our website in early 2015.

Although the Strategy is for the period up to 2020, 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.

The full Local Flood Risk Management Strategy is available on our website:

<http://www.merton.gov.uk/environment/flooding/lfrms.htm>