

# Royal Borough of Windsor & Maidenhead

## Local Flood Risk Management Strategy 2026-2041

*To make the borough more resilient to flooding today, and the increasing future flood risk associated with climate change.*

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# Strategic overview

## Executive summary

This strategy has been produced to update the council's approach to managing the risk of flooding from local sources (surface water, groundwater and from ordinary watercourses) within the Royal Borough of Windsor & Maidenhead. This document informs residents, communities, businesses and other authorities while also setting the framework for future partnership working, goal-setting and projects.

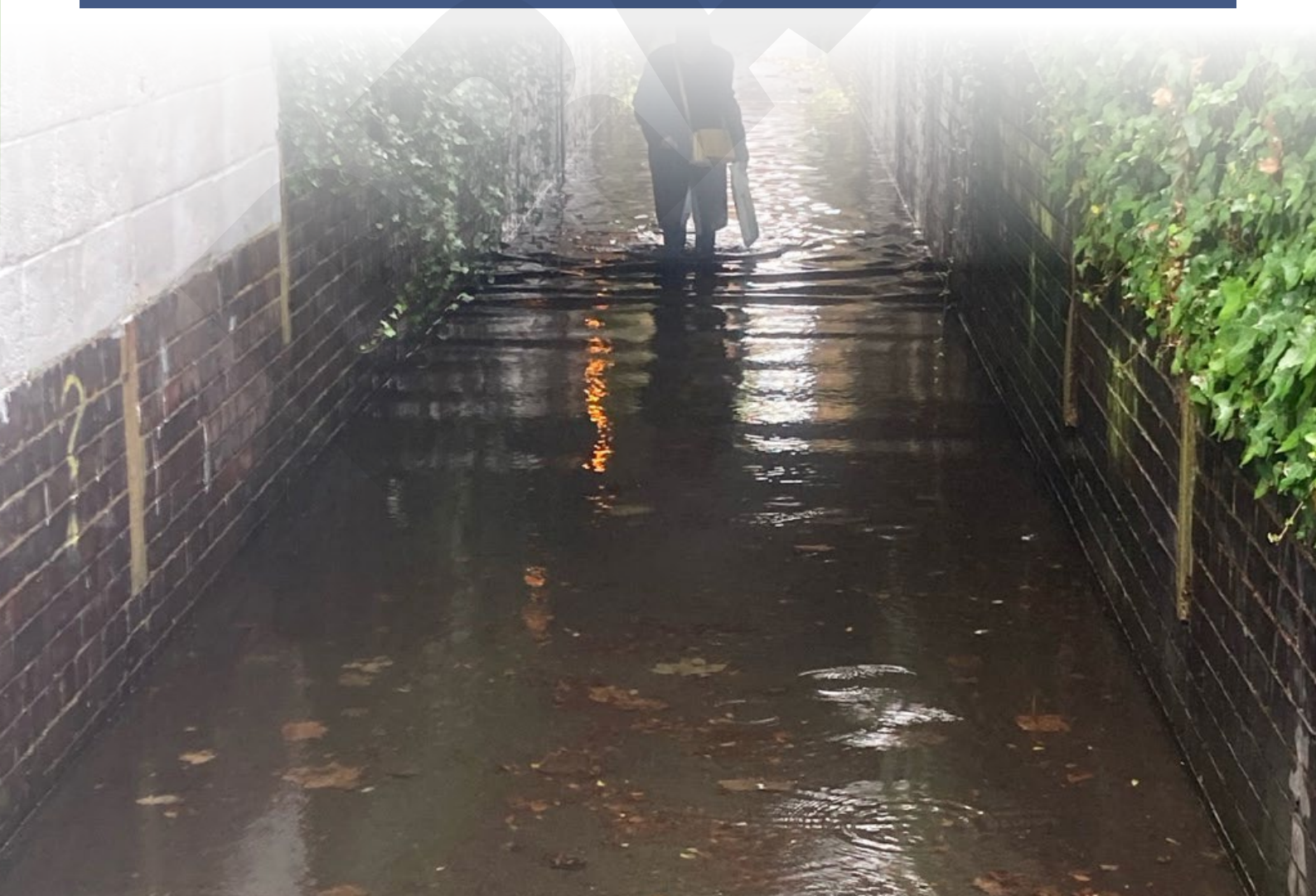
The council and its partners use this strategy as a basis to plan to invest in flood alleviation schemes to better protect those areas of the borough which are regularly and severely impacted by flooding. This can be achieved via both engineered and natural solutions. While this is a challenge with the current financial context locally and nationally affecting the sector, we are confident of being able to identify funding opportunities which will enable us to achieve this aim.

This strategy sets out the ways in which the council, its partners, communities, businesses and individual residents can work together and share information to manage flood risk. This will include ways the council can better communicate to the public and how information is fed into decision-making process from impacted areas.

We also understand that flooding experiences can be distressing for residents and businesses so advice and signposting to support local resilience will make up a substantive part of this strategy.

## Vision statement

This strategy aims to ensure that the borough has a strong and embedded public understanding of how to mitigate flood risk all year round. This means that the council has robust and data-informed partnerships with the Risk Management Authorities, landowners, residents and companies all taking steps to mitigate the flood risks within their control.



# Context and drivers

## Strategic context

The Royal Borough of Windsor & Maidenhead has extensive flood risk with 11.2% of properties at risk of any level of flood risk. This is expected to increase over time with climate change. The main risk of flooding to the borough is from fluvial flooding from the River Thames which borders the north of the borough. Alongside this, there are a number of areas at high risk of surface water flood risk, particularly in our more urban areas. Groundwater flood risk also plays a part with some areas around the borough's main rivers being susceptible to flooding from this source due to the presence of river gravels close to the ground surface. The borough also has one groundwater flood area as defined by the Environment Agency.

A new strategy was deemed necessary due to the age of the previous strategy, first published in 2014. Localised flooding and amendments to the responsibilities of Risk Management Authorities (RMAs) mean that an updated approach is needed. A longer-term 15-year vision has been determined as effective flood risk management requires foresight and planning which in turn will increase the chance of achieving external funding from various project funding cycles. The below map shows the areas within the borough which have properties at risk of any source of flooding. This data and similar analysis will be used to aid delivery of this strategy.

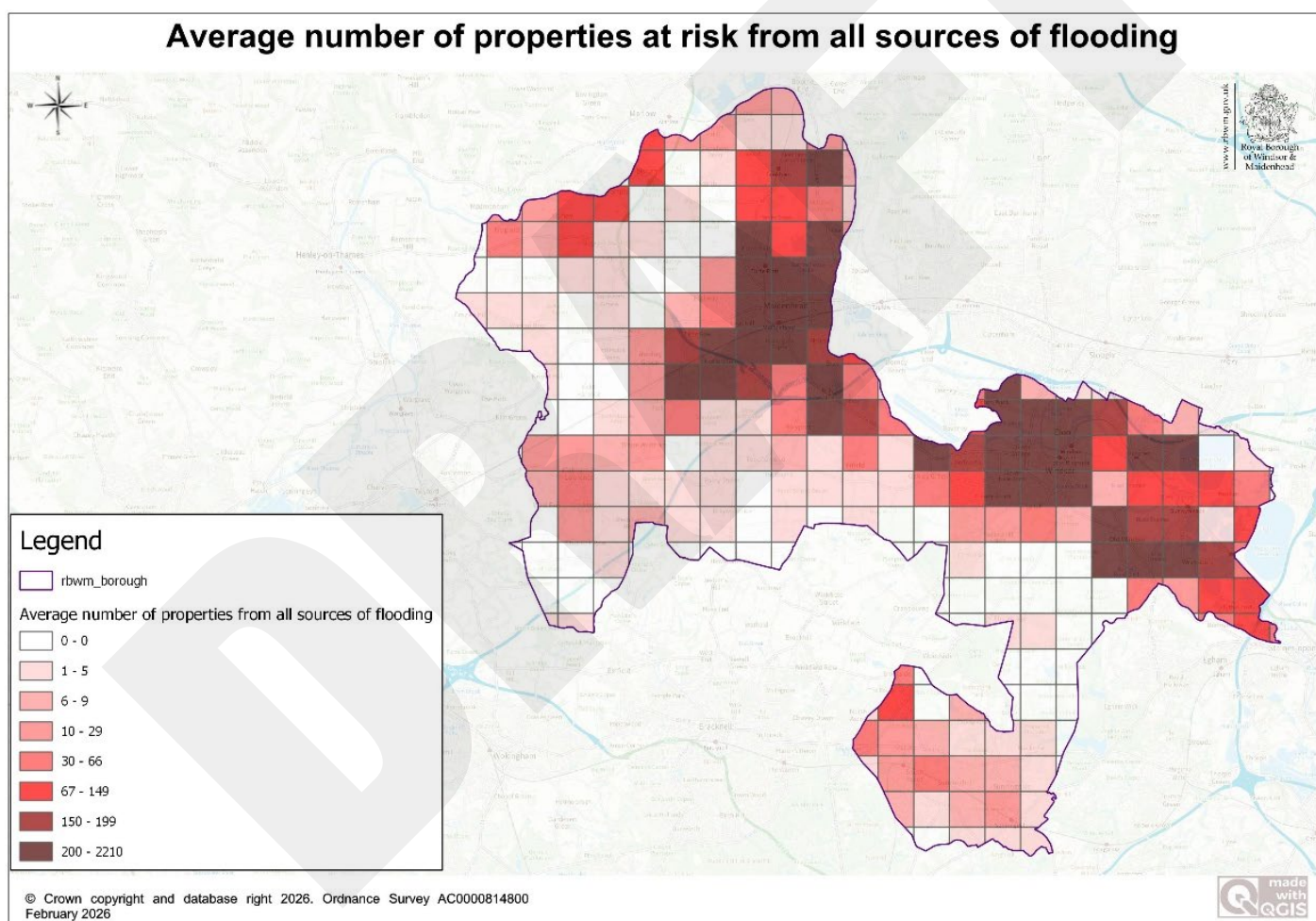


Figure 1- Map showing the average number of properties across the borough at risk of flooding from all sources

This strategy is aligned with the 2020 National Flood and Coastal Erosion Risk Management Strategy, in accordance with the Flood and Water Management Act 2010, to ensure that the local approach builds on the national framework. The key themes of this strategy which need to be considered are: climate resilient places; today's growth and infrastructure resilient in tomorrow's climate; a nation ready to respond and adapt to flooding and coastal change. More information can be found in Appendix C.

This strategy is linked to the overarching corporate strategy for the Royal Borough of Windsor & Maidenhead, the council Plan (2024-2028), as well as those strategies focused on the environmental work being undertaken. This includes The council's Environment and Climate Strategy, Borough Local Plan and Transport Plan as well as key documents for delivery such as the Biodiversity Action Plan and Sustainability Supplementary Planning Document. Each of these documents have links to the management of flooding and have been considered in the development of this strategy. In addition, flooding has public health implications, such as risks of injury, exposure to contaminated water, disruption to healthcare services and impacts on mental and respiratory wellbeing, which may be more significant for vulnerable residents and communities. In preparing and implementing this strategy, we will, where relevant, consider health and wellbeing implications by working with relevant partners.

There are also regional documents which give guidance for the management of flood risk in the borough. These include the Thames River Basin District Flood Risk Management Plans published by the Environment Agency and the Drainage and Wastewater Management Plans published by Thames Water.

## Legislative context

The Flood and Water Management Act 2010 (FWMA2010) places duties and responsibilities onto the council as a Lead Local Flood Authority. One of these duties is to maintain, apply and monitor a strategy for managing local flood risk within its area.

The Flood and Water Management Act 2010, in Section 9, sets out the components Local Flood Risk Management Strategies should include which is set out in Appendix B.

## Roles and responsibilities

The council is not the only authority with roles and responsibilities to manage flooding within the Royal Borough. Known as Risk Management Authorities (RMAs) the management of flood risk is shared amongst a range of bodies, set out in brief below.

With multiple services within the council and other outside bodies involved with the management of flooding, we have worked closely with these other teams and authorities to ensure that this strategy can work towards joint goals. It is important to note that no flooding authority is expected to eliminate the risk of flooding, but instead to appropriately control and manage the likelihood and impact of flooding.

- **The Environment Agency**
  - The Environment Agency (EA) is responsible for managing the risk of flooding from main rivers and fluvial flooding. The EA are also the strategic flood risk authority for England and maintain the National Flood and Coastal Erosion Risk Management Strategy, most recently published in 2020.
- **Royal Borough of Windsor & Maidenhead**
  - As the Lead Local Flood Authority (LLFA), the council is the relevant authority for managing the risk of flooding from ordinary watercourses, surface water flood risk and groundwater flood risk.
  - The Royal Borough also have a role to manage the risk of flooding through its function as the Highway Authority. Under this role, the council are responsible for the management and maintenance of highway drainage features. The management of these features mitigates the risk of flooding to the highway but can also have an important role in managing the risk of flooding to property.
- **Thames Water**
  - Thames Water (TW) act in the borough as the Public Sewer Authority. In this role they are responsible for managing and maintaining public sewers in the Royal Borough.
- **Riparian landowners and residents**
  - Landowners also have a large part to play in managing the risk of flooding in the Royal Borough. Riparian owners have a responsibility to maintain watercourses running through or adjacent to their land. As well as this, residents are responsible for managing the risk of flooding to their own properties. This can often be as simple as knowing what steps to take should flooding occur.

## Principles

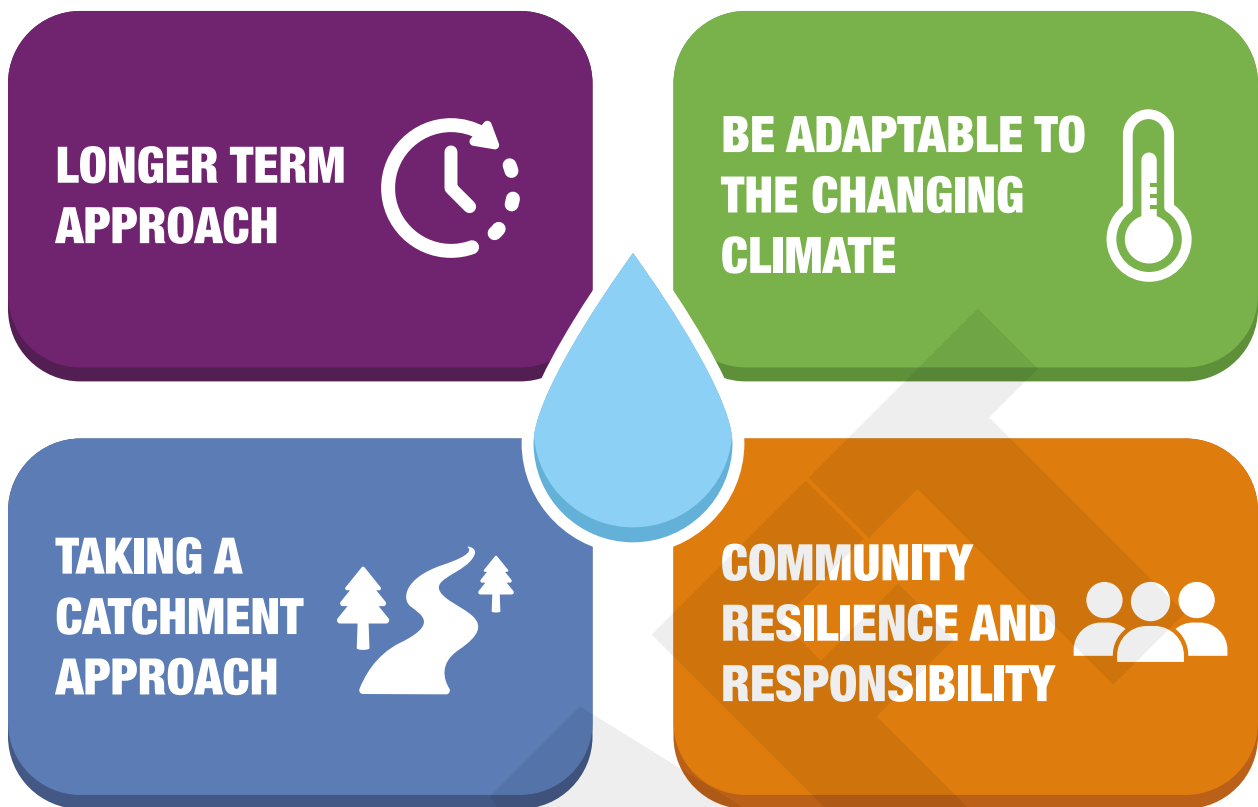


Figure 2 - Principles of the Local Flood Risk Management Strategy 2026-2041.

### Longer-term approach

This principle underpins the others. It emphasises the time horizons needed to scan and prepare against risks in the natural and built environment. This ensures that projects can be future-proofed against the impacts of a changing climate while also being able to match up with other sustainable goals. These goals need to remain linked into other strategies including the National Flood and Coastal Erosion Risk Management Strategy, the Borough Environment and Climate Strategy and Local Transport Plan and other strategies.

### Be adaptable to the changing climate

Climate change impacts are forecast to cause wetter winters and more summer storms, which means the methods used to manage the risk of flooding in the Royal Borough must also adapt to match.

This principle looks at what works the council can do through schemes such as sustainable drainage or other capital investment in flood alleviation schemes or highway drainage improvements. This principle also looks outside the council encouraging other stakeholders, flooding authorities and residents to take climate change into account when undertaking work which can have an impact on flood risk, such as reduction of green space or paving of driveways.

This principle also seeks to ensure that the council and other risk management authorities adjust working practices as necessary to take account of the changing climate, whether that is in how projects are prioritised or day-to-day work is undertaken.

## Taking a catchment approach

This principle seeks to change the traditional, reactive approach of dealing with flood water at the point it collects (the receptor) to one which works across a catchment (the cumulative area in which water flows and is collected). This means identifying where water could be stored along a flow path, whether by installing new infrastructure or using natural flood management techniques to reduce the peak flood depths at the localities where water collects.

The principle acknowledges that flow paths often straddle risk management authority areas and responsibilities. This therefore calls for improved partnership working with other risk management authorities, parish councils and other interested stakeholders to bring forward schemes for reducing the risk of flooding. This approach is holistic, preventative and reflects best practice; it also underpins the regional 'Thames River Basin District Flood Risk Management Plan'.

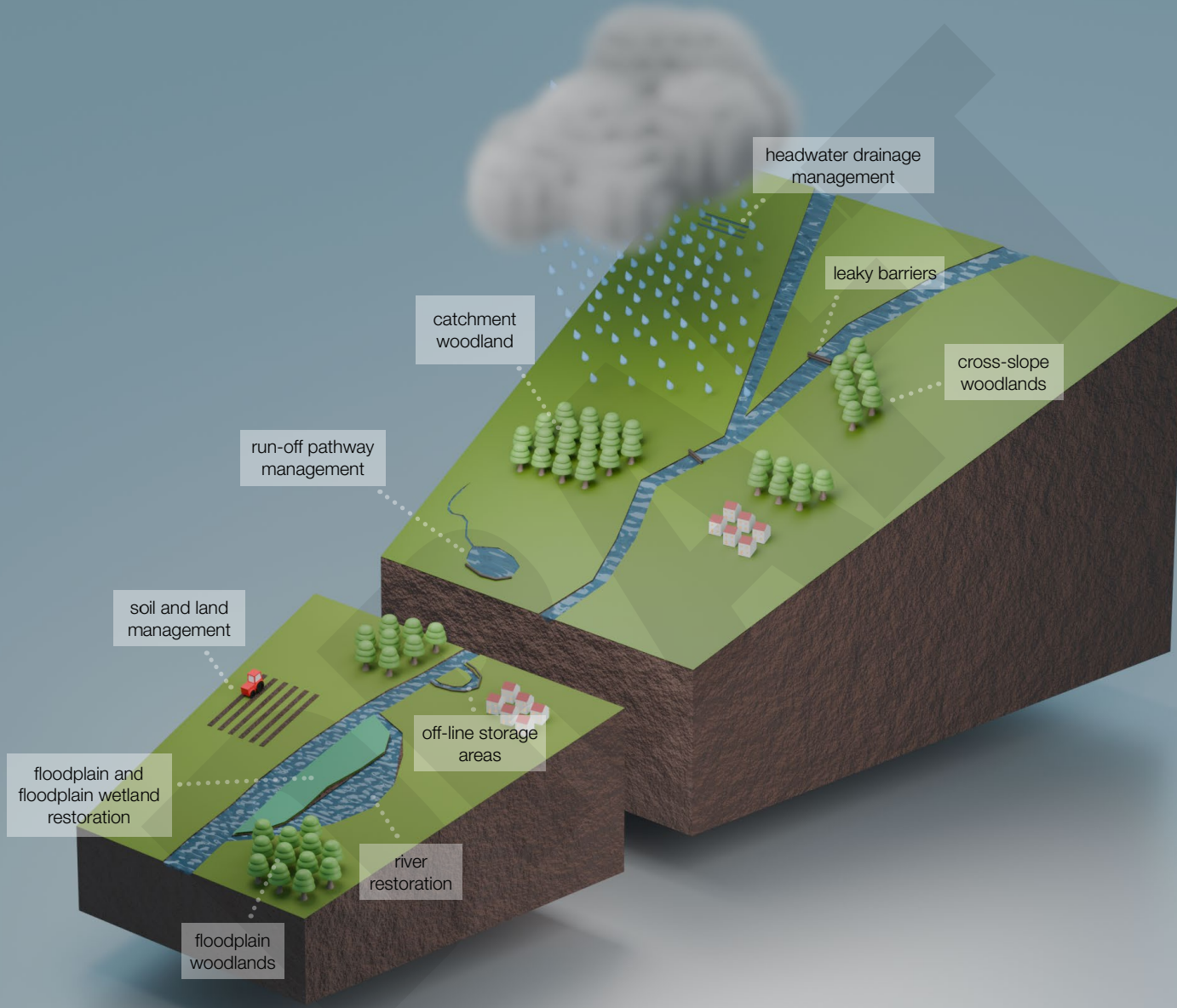


Figure 3 - Different measures that could be used to mitigate flood risk across a catchment

## Community resilience and responsibility

Finally, this principle acknowledges that the council cannot stop, nor is it responsible for stopping, flooding to property in the borough. As such, it is essential that residents who are at risk of flooding are empowered and informed to manage their own risk and that to their own properties.

The council can support them on this journey with signposting and educational materials towards measures that they can take themselves to prepare, respond and recover from flooding while also considering alterations they can make to their properties to make them more resilient to flood water.

This principle will also look to ensure that the strategy informs and educates residents on the impact of works on their own property to their communities, such as the increase in flood water on the highway from multiple paved driveways/

## Objectives

These objectives have been informed by the above principles, strategic context and the National Flood and Coastal Erosion Risk Management Strategy 2020. The objectives have underlying action plans and include steps that will be undertaken by both the council, partners or other interested stakeholders. These can be found in Appendix 2.

Table 1- Objectives of the Local Flood Risk Management Strategy



## Objective 1 - Data and information

Our understanding of flood risk across the borough will be improved through effective data collection and management with Risk Management Authorities and encouraging increased reporting of flooding by residents and communities. This will in turn drive more effective decision-making, within the Flood Risk Management Team, throughout the council or within other Risk Management Authorities.



The council already collects data such as property flood records, with information collected in accordance with the relevant privacy statement. More data can be collected from business-as-usual work to further inform wider workstreams. However, this data needs to be collected and shared accessibly between authorities to achieve shared objectives.

While data collection and processing is important, it is equally important for residents to report flooding and issues with infrastructure. As such, the council will look at the current reporting routes and how this process can be better advertised and improved to make it as easy as possible for residents to make the council aware of issues across the borough.

### Activities to achieve this objective:

- Build data sets which can better inform where and how we do schemes to mitigate flood risk.
- Improve data collection to ensure data can be used throughout the council and by partners.
- Better share information between authorities and teams to identify opportunities to work in partnership



## Objective 2 - Planning, placemaking and sustainable drainage

Under the Government's reformed planning system, the council will need to plan for around 20,000 new homes to be built over a 20-year period. In this context, the council will influence the widespread use of sustainable drainage across the borough in new housing developments, as well as in council projects and retrofit to existing properties and environment.



The primary part of this objective is to ensure that the council is undertaking its role as a statutory consultee for major planning applications. In this role, the LLFA reviews surface water drainage strategies submitted by developers to check their adherence with the current standards for Sustainable Drainage. In September 2024, this role was informally expanded by the Sustainability SPD when it was adopted by the council. This made it a requirement for relevant applications to utilise sustainable drainage. As such, the LLFA provides further assistance for the review of minor applications when it is requested.

Risk Management Authorities are not the only ones who can deliver flood risk mitigation as development of an area can be a significant tool for managing local flood risk using sustainable drainage both for a specific site or even for a wider community around a development.

As well as this, sustainable drainage can also be used more widely away from development and as such promoting its use would have significant benefits. These further uses could be:

- within larger placemaking projects.
- within wider council or Risk Management Authority projects.
- individual property owners using small scale storage features such as planters or attenuating water butts.



Figure 4 - Photo SuDS measures. Attenuation basin at Braywick Leisure Centre

Another important link between planning and flood risk though is ensuring that unauthorised works on flood plain or those which interferes with surface water flows are appropriately investigated. This responsibility is split between the Environment Agency and Local Planning Authority so clarity about who will investigate specific issues or even act where appropriate may help encourage reporting and mitigation of wider impacts.

This objective will set out the ways in which the Lead Local Flood Authority will seek to influence how sustainable drainage can be used across the borough to mitigate local flood risk. The promotion of sustainable drainage will be to both developers through the planning process and throughout the council within placemaking projects.

**Activities to achieve this objective:**

- Undertake the role of statutory consultee for surface water drainage in a comprehensive manner and assisting the implementation of the council's Sustainability SPD published in September 2024.
- Implementation the sustainable drainage elements of the council's Sustainability SPD which puts additional requirements for SuDS on relevant minor applications.
- Consider development of a policy for how sustainable drainage should be implemented within planning developments.
- Promote the benefits of sustainable drainage to encourage it to be included within the initial planning stages of placemaking projects undertaken by the council including both flood and water quality benefits. An example of this would be to integrate sustainable drainage features into capital transport projects to mitigate road surface runoff, where this can be achieved affordably and within the works footprint.
- Prepare the council for any future implementation of Schedule 3 of the Flood and Water Management Act 2010.

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### Objective 3 – Creating resilient communities

The council and its partners will inform and empower residents and communities to become more resilient to flooding and climate change by providing information and access to facilities and external funding opportunities.

Risk management authorities cannot eliminate all flood risk for communities and as such landowners are ultimately responsible for protecting their own properties. There is also no duty for risk management authorities to prevent properties from flooding.

This means it is vital for residents and communities to be informed about ways they can manage their own flood risk, whether this is to their property or their own safety, and how actions on their own land can have an impact on their communities and a positive impact on the public health impacts of widespread flooding.

The development in technology such as property flood resilience enhances the ability for property owners to mitigate the impact of flooding to their properties by resisting flood water (preventing it entering the property) or improving resilience (allowing faster recovery from flooding). In addition, there are steps residents can take to mitigate their own personal risk using resilience and emergency planning, including undertaking and maintaining community and personal resilience plans.



### Flood resilient house

When protecting a property from flooding, it is effective to use techniques that are both **flood resistant** (keep water out) and **flood resilient** (reduce the impact of damage). There are many adaptations you can make to your house and garden, including with the use of sustainable drainage systems (SiDS). Here are some options...

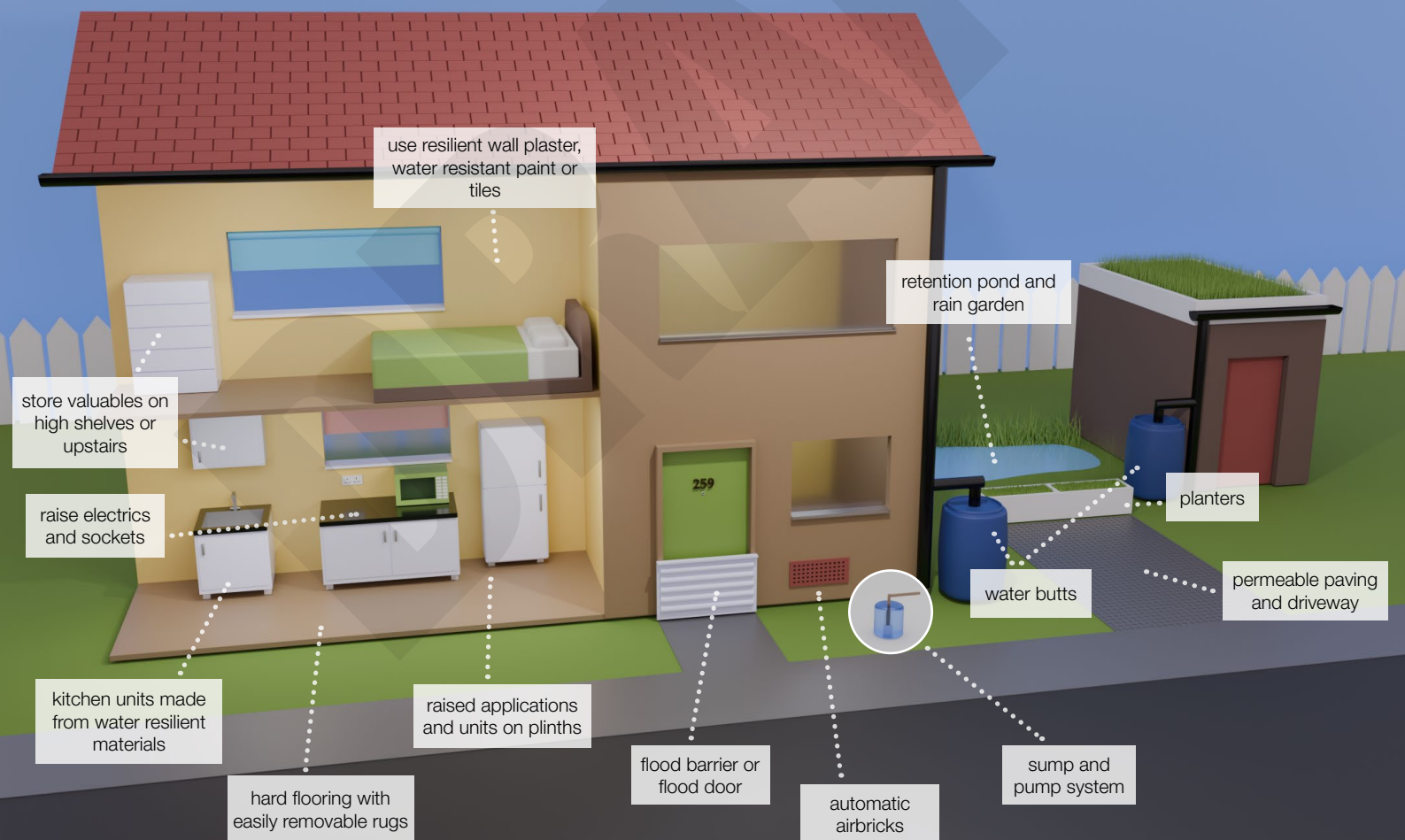


Figure 4 - Image showing different resilience measures that can be used on individual properties

Residents are also not often aware of the impact that work on their properties can have on their communities. Work such as paving front gardens to expand driveways without using permeable surfaces can add to water falling onto highway, reducing the capacity of highway drainage to drain the road. This can increase risk to low lying properties as drainage can be overwhelmed faster.

On top of these planning methods, it is essential that residents have the tools to best respond to and recover from flooding. As such, clear information which can signpost residents to the correct Risk Management Authorities and educational material are important tools that RMAs should be creating to further improve community and individual resilience. Some of this information can be found on the council website.

This objective sets out how the council and its partners will help build resilience in the borough through the promotion of personal and property resilience measures to empower residents and communities to respond and recover more quickly to flooding incidents and inform residents about how their personal choices can improve resilience of their communities.

#### **Activities to achieve this objective:**

- Improve risk management authority links and engagement with residents and communities to promote personal resilience measures such as resilience plans through improvements to public facing website and property flood resilience measures to mitigate the impact to properties.
- Inform residents about how works on their properties can have an impact, positive or negative, to the risk of flooding to other parts of their community.
- Creation of resources for residents and communities to understand what to do, who the contact is during a flood and what they can do to recover from a flood.
- Reduce public health impacts to at risk communities through proactive steps, both in terms of flood risk mitigation and preparation of communities for future flooding incidents including education around resilience.
- Investigate the feasibility of developing a forum for residents and community groups to share best practice measures they have taken to mitigate their own flood risk and to promote information sharing between communities.



## Objective 4 – Watercourse Maintenance Responsibilities

The council, working closely with the Environment Agency, will educate and inform residents and landowners about responsibilities for watercourses. This objective will also establish and monitor the use of the council's enforcement powers over ordinary watercourses in the borough.

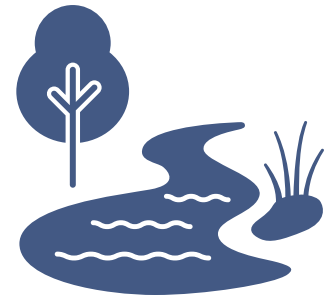
Watercourses are defined by Section 72 of the Land Drainage Act 1991 as all rivers and streams and all ditches, drains, cuts, culverts, dikes, sluices, sewers (other than public sewers within the meaning of the Water Industry Act 1991) and passages through which water flows.

The council unanimously passed a motion in Full Council on 11 March 2024 to ensure land drainage infrastructure is maintained as lack of maintenance or unconsented changes to watercourses can have a significant impact on localised flood risk. Many residents are not aware of their responsibilities as a landowner or occupier and the relevant legislation and powers to prevent an increase in risk.

Watercourses make up a significant proportion of the land drainage network across the borough however, in most cases, the council is not responsible for maintaining them. Instead, this responsibility sits with landowner or occupier, under the Land Drainage Act 1991. The council instead can use its powers, as a Lead Local Flood Authority, to ensure residents maintain, or do not alter, ordinary watercourses. When the council use these powers should be laid out in a clear enforcement policy. A joined-up approach is also required however as the Environment Agency are the relevant enforcement body for any issues relating to main rivers.

### Activities to achieve this objective:

- Promote the responsibilities of landowners to maintain watercourses along with partners to further public understanding using educational materials and the council website.
- Promote the Ordinary Watercourse Consent Process publicly to encourage best practice when changes to watercourses are proposed
- Develop a clear enforcement policy to provide guidance of how and when the council will use its enforcement powers under the Land Drainage Act 1991.
- Use investigations to collect data of watercourses where enforcement action has been necessary.



## Objective 5 – Maintenance of Authority Owned Assets

The council and its partners will work together to improve the way existing drainage assets are recorded and maintained within the borough.

Flood risk management at its simplest requires that authorities have plans in place for monitoring and maintaining their own assets. The table below summarises some, but not all, of the assets that different Risk Management Authorities may own and maintain:



### Summary of some of the assets different risk management authorities may be responsible for and maintain.

Royal Borough of Windsor & Maidenhead	Environment Agency	Thames Water
Highway gullies	Category 1 main rivers	Surface water and foul water sewers
Soakaways	Flood defence schemes	Pumping stations
Culverts under the highway	Weirs and sluices on main rivers	Sewage treatment works

Maintenance of these assets can generally manage flood risk across built up areas during average storm events; however, over time, where budgets have been strained over years, the amount of maintenance done may have reduced meaning some assets are not being maintained effectively.

This objective will seek to improve flood risk of areas by ensuring existing structures and assets are maintained through effective maintenance regimes and close communication between authorities when defects are identified.

#### Activities to achieve this objective:

- Work with our contractors to ensure the regular highway drainage maintenance programme is working efficiently.
- Improve drainage asset data databases such as a Flood Risk Asset Register.
- Encourage all partners to maintain assets regularly and promote the importance of developing and using regular maintenance programmes.
- Improve links at officer level between all risk management authorities for asset defects to be efficiently passed over.

## Objective 6 – Partnership working across risk management authorities and regionally



The council will put in place measures to find opportunities for improved partnership working with its partners while also clarifying roles of authorities to the public. One common issue that residents often deal with is not knowing which Risk Management Authority deals with their specific issues. This has stemmed from the splitting of powers duties and roles related to flooding across several different Risk Management Authorities.

It is vital that where Risk Management Authorities have shared objectives that they work together to achieve them. Alongside working with the Environment Agency and Thames Water on a regular basis regarding issues within the borough, the council has boundaries with four other Lead Local Flood Authorities. Partnership working and joint projects are an effective tool for achieving shared objectives and cost savings.

This objective will ensure that Risk Management Authorities work together on flood mitigation projects and other partnership projects. It also focuses on improving communications of the roles and responsibilities of these partners to the public.



Figure 5 - Risk Management Authorities involved in mitigating flood risk in the Royal Borough of Windsor & Maidenhead

### Activities to achieve this objective:

- Work with partners to define the roles and responsibilities of each risk management authority in the Royal Borough and collate into publicly available documentation.
- Work with partners to publicise these responsibilities to improve understanding of who the relevant authorities are for different flooding issues.
- Work with partners to identify opportunities for partnership working for both flood mitigation and communication projects.

## Objective 7 - Investment in flood risk mitigation

The council will develop and take forward a programme of work with the aim of mitigating flood risk to properties and critical infrastructure in the borough, bidding for external funding to deliver these projects.

Climate change means that the capacity current drainage infrastructure is being exceeded more frequently as storms are becoming heavier and more frequent throughout the year.

To keep up with the changing climate, investment into flood mitigation is required. The wider financial challenges of the local authority make it difficult to find sufficient investment through internal funding. As such, accessing external funding opportunities is vital for project delivery, whether this comes from central government via flood defence grant in aid (FDGiA) or grants from other risk management authorities such as Thames Water Surface Water Management Programme cycles.

This objective will set out how the council will invest in projects to mitigate flood risk across the Royal Borough. This will include surface water flood risk schemes, highway drainage improvements and investment into a large-scale flood scheme in Datchet, Horton and Wraysbury and Old Windsor.

### Activities to achieve this objective:

- Explore external funding routes to increase ability of the council to invest in and take forward flood risk mitigation projects where appropriate.
- Create a pipeline of surface water and groundwater flood risk projects based on data collected through Section 19 investigations which are ready for bids to be made for funding, including SuDS, NFM and more traditional flood risk mitigations schemes.
- Develop a robust prioritisation process for capital drainage works, both highway drainage and wider flood risk mitigation.
- Work in partnership with the Environment Agency to deliver a flood scheme to mitigate flood risk from the River Thames in the east of the borough.



## Objective 8 – Section 19 flooding investigations

The council will investigate flooding to better understand flooding and make recommendations for future management of flood risk.



Flooding investigations are a statutory duty for council as the Lead Local Flood Authority, under section 19 of the Flood and Water Management Act 2010. This requires the LLFA to undertake investigations into flooding incidents to property and infrastructure on an appropriate scale. These investigations are carried out in accordance with the councils updated Flood Investigations Policy and Procedure. The criteria of what needs to be investigated and what needs to be reported on is set out in Appendix F.

This objective will seek to improve efficiencies in how investigations are undertaken and what information is collected.

### Activities to achieve this objective:

- Review, use and monitor the effectiveness of the council's Section 19 Investigation processes and policies with reference to recently published Defra guidance.
- Develop methods of data collection so information can be incorporated into project planning.
- Improve links with partner authorities so that where appropriate risk management authorities are working together to investigate flooding issues.



## 4. Appendices

### Appendix A – Sources of flood risk in the borough

The Royal Borough of Windsor & Maidenhead experiences flooding from multiple sources, due to its topography geography, geology and proximity to the River Thames. The different sources of flooding that are relevant to the Royal Borough are presented below.

Type	Description
Surface water flooding	Surface water flooding, also known as pluvial or flash flooding, is the term used for flooding that occurs typically from runoff caused by rainfall. This generally occurs during high intensity rainfall where water follows natural topography and accumulates in local low points. This commonly coincides with the capacity of local drainage infrastructure being exceeded by the amount of water trying to enter it but can also be exacerbated when the ground is saturated or when local infrastructure such as highway drainage or watercourses are not maintained.
Groundwater flooding	Groundwater flooding occurs when the level of the water table rises above ground level. There is limited understanding about this source of flooding however there are some known causes such as emergence of springs and hydraulic pressure from high river levels. It can be difficult to differentiate groundwater flooding from surface water flooding.
Fluvial flooding	Fluvial flooding, or river flooding, takes place when a river channels capacity has been exceeded, causing it to break its banks onto surrounding land.
Ordinary watercourse flooding	Similarly to fluvial flooding, flooding from ordinary watercourses occurs when ordinary watercourses have their capacities exceeded.
Sewer flooding	Sewer flooding occurs when a public sewer, managed by Thames Water within the borough, have their capacity exceeded. This can cause surcharging on the surface through manholes or even backing up of household systems.
Highway flooding	Highway flooding occurs when the surface of the highway is submerged in water. This can occur for a number of reasons including, defects in highway drainage infrastructure, rainfall exceeding the capacity of highway drainage infrastructure or as a impact of sewer flooding.
Reservoir flooding	<p>Reservoir flooding occurs when water is lost from reservoirs, usually when a dam or bank fails. As such, reservoirs are closely monitored by landowners and regulated by the Environment Agency to ensure failures do not occur.</p> <p>Reservoir Flood Maps have been produced by the Environment Agency for large reservoirs over 25,000 cubic metres of water.</p> <p>Flood maps are not displayed for smaller reservoirs and details of flood depth and flow are not provided. In the borough there is only one reservoir identified within the mapping; the Queen Mother Reservoir, located to the south east of Windsor. However the mapping also indicates that the maximum flood extent from the Wraysbury, King George VI and Staines reservoirs, located to the south east of the borough boundary, would also impact parts of the borough.</p> <p>These reservoirs are situated above ground, and a sudden failure of the embankments retaining the stored water would have a catastrophic effect on properties situated in the path of the resulting flood wave. Failure of the underground system is also possible, as experienced within the borough at Datchet and St Leonard's when underground pipework failed resulting in the flooding of a number of properties. It is notoriously difficult to measure in real terms the potential risk of a structural failure of this nature occurring.</p>

## Appendix B – Legislative background of the strategy

The Flood Risk Regulations 2009, born out of the Government's response to the Pitt Review of the 2007 floods (published in 2008), designates unitary authorities, such as the Royal Borough of Windsor & Maidenhead, as a Lead Local Flood Authority (LLFA). This made the council the strategic authority for managing local flood risk in the Royal Borough.

This role was expanded upon through the enactment of the Flood and Water Management Act 2010. This handed down specific duties and responsibilities to the council, one of which was the duty to maintain a Local Flood Risk Management Strategy. Under section 9, Local Flood Risk Management Strategies must include:

- the risk management authorities in the authority's area
- the flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area
- the objectives for managing local flood risk (including any objectives included in the authority's flood risk management plan prepared in accordance with the Flood Risk Regulations 2009)
- the measures proposed to achieve those objectives
- how and when the measures are expected to be implemented
- the costs and benefits of those measures, and how they are to be paid for
- the assessment of local flood risk for the purpose of the strategy
- how and when the strategy is to be reviewed
- how the strategy contributes to the achievement of wider environmental objectives.

These have all been incorporated into this strategy, either in the main strategy document or the annexes and appendices.

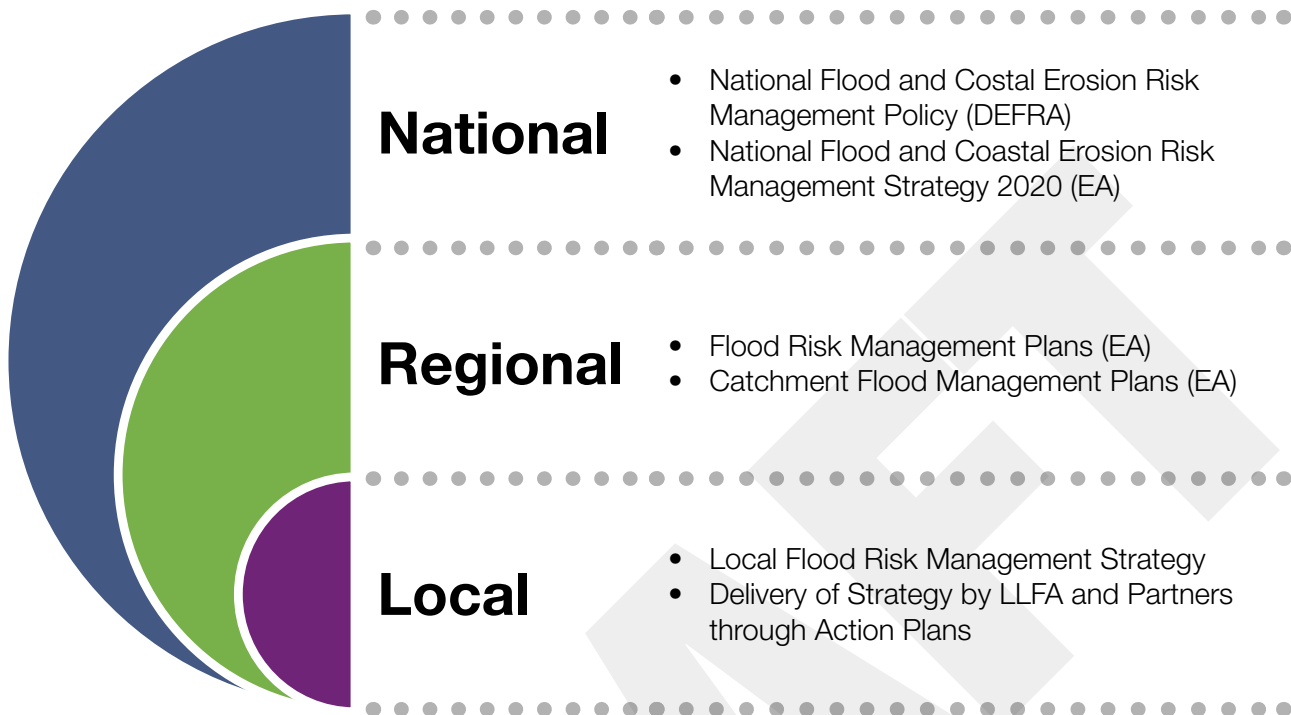
The other duties and roles of a Lead Local Flood Authority can be found within the Flood and Water Management Act 2010. Lead Local Flood Authorities were also made Statutory Consultees for surface water drainage plans of major planning applications through Written Statement (HCWS161), with Local Planning Authorities obliged to consult on these points.

The Flood and Water Management Act 2010 therefore provides the majority of the context for the roles and responsibilities of the LLFA. Flooding is not however solely managed by the LLFA and there are many other pieces of legislation which are relevant to the day-to-day management of flood risk. These have been considered in the development of this strategy and are listed below:

- The Reservoirs Act (1975)
- The Ancient Monuments & Archaeological Areas Act (1979)
- The EU Wild Birds Directive (1979/409/EEC & 2009/147/EC)
- The Environment Act (1995)
- The Countryside & Rights of Way Act (2000)
- The EU Strategic Environmental Assessment Directive (2001/42/EC) Appendix A 16
- The Highways Act (1980)
- The Wildlife & Countryside Act (1981)
- The Building Act (1984)
- The EU Environmental Impact Assessment Directive (1985/337/EEC & 1997/11/EC)
- The Environmental Protection Act (1990)
- The Town and County Planning Act (1990)
- The Planning (Listed Buildings & Conservation Areas) Act (1990)
- The Land Drainage Act (1991)
- The Water Resources Act (1991)
- The Water Industry Act (1991)
- The EU Habitats Directive (1992/43/EEC)
- The Water Act (2003)
- The Planning and Compulsory Purchase Act (2004)
- The Civil Contingencies Act (2004)
- The EU Floods Directive (2007/60/EC)
- The Pitt Review (2008)
- The Climate Change Act (2008)
- The Planning Act (2008)
- The Local Democracy, Economic Development & Construction Act (2009)
- The Localism Act (2011)

## Appendix C - Strategic alignment of the Local Flood Risk Management Strategy

As well as legislation, the strategy is guided by national, regional and local climate related strategies which must be taken into account in the development of the Local Flood Risk Management Strategy. The below diagram shows how the Windsor & Maidenhead LFRMS fits into the national context.



This strategy has taken account of both the national and regional framework that has already been put in place by applying their foundations within both the principles and objectives of the Local Flood Risk Management Strategy. The following detail will go through the links between these strategies and the Local Flood Risk Management Strategy.



## National

### National Flood and Coastal Erosion Risk Management Policy

The National Flood and Coastal Erosion Risk Management Policy sets out the long-term ambition to create a nation more resilient to flooding and coastal erosion in tomorrow's climate. The policy focuses on how this resilience can be built to mitigate the impact on people, the environment and the economy.

The five policy areas that are included in this policy are:

#### 1. Upgrading and expanding our national flood defences and infrastructure

This sets out the commitment of Central Government to invest in measures to protect properties. This investment is £5.2 billion from 2021-2027 and split nationally to be distributed by the various Regional Flood and Coastal Committees (RFCCs).

#### 2. Managing the flow of water more effectively

This policy will be to promote integrated approaches to manage the flow of water, not only better protecting communities from flooding but will provide wider benefits for water resources and the environment. Measures being promoted in this policy include opportunities for nationally strategic infrastructure and provision of Sustainable Drainage Systems (SuDS).

#### 3. Harnessing the power of nature to reduce flood and coastal erosion risk and achieve multiple benefits

The use of nature-based solutions can provide wider environmental and social benefits as well as the intended flood and coastal erosion protection. These can include nature recovery and water quality enhancements. This policy looks to strengthen the link between Natural Flood Management (NFM) and these wider benefits and how they can be more widely delivered.

#### 4. Better preparing our communities

This policy states that while the overall aim is to better protect properties, importance is also placed on ensuring communities and businesses have the information they need to take ownership of their resilience. This will be done by providing support to these communities to raise awareness and understanding of risk and share advice on steps they can take to better prepare for flooding as well as ensuring communities have the support needed when flooding does happen and during the recovery that follows.

This policy also includes ambitions to move development away from areas at risk of flooding while also providing quality property and infrastructure.

#### 5. Enabling more resilient places through a catchment-based approach

This policy means considering a full range of measures to mitigate the impact of flooding to an area by looking upstream, downstream or at the location of the impacts. This has linked directly into the development of more strategic and comprehensive planning at longer term, more local actions. Examples of this planning is the development of Flood Risk Management Plans which identify flood risk areas for the different sources of flood risk.

### National Flood and Coastal Erosion Risk Management Strategy

The National Flood and Coastal Erosion Risk Management Strategy is the implementation of the National Flood and Coastal Erosion Risk Management Policy. The Local Flood Risk Management Strategy should take account of the National Strategy. The current National Strategy has been published in 2020.

The FCERM Strategy is split into three chapters which detail how flood and coastal erosion risk will be managed nationally.



## 1. Climate resilient places

This chapter focuses on ensuring that towns and cities are resilient to the impact of flooding through the development and maintenance of defences, improvements in placemaking and improvements to how we respond to and recover from flooding.

This includes the implementing measures such as Natural Flood Management (NFM) and linking into other strategies such as Local Nature Recovery Strategies (LNRS).

Specific measures that link into the management of local flood risk include partnership working between authorities, communities and landowners to deliver flood mitigation and working with the natural environment and processes to mitigate flood risk while also enhancing the natural environment.

## 2. Today's growth and infrastructure resilient in tomorrow's climate

The development of current and future infrastructure is maintained and developed with climate change being taken into consideration. This includes new property developments to ensure that flood risk assessments take 2018 climate change predictions into account.

With this being the case, the investment in flood mitigation should also include opportunities to boost biodiversity and the economy. This will enable further investment into the sector and development of current infrastructure.

## 3. A nation ready to respond and adapt to flooding and coastal change

This part of the strategy focuses more on what can be done to educate and inspire people to take action before flooding happens. There are currently 5.2 million properties modelled to be at risk of flooding but only 39% are aware of that risk. It highlights the importance of providing residents with the information that they need to be fully prepared for flooding. This should be done through engagement with communities and Risk Management Authorities sharing best practice around working with communities including to help communities to set up flood groups, where they are wanted, to develop and test local flood plans.

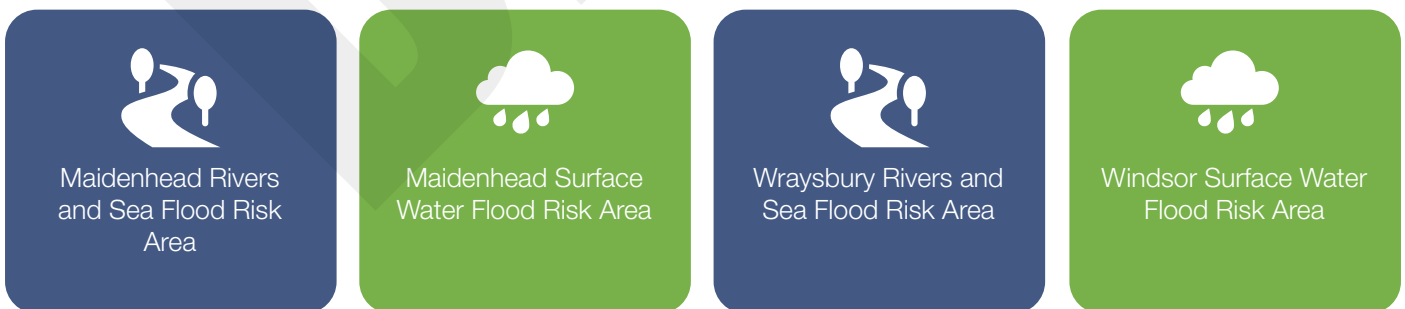
### Regional

#### Flood Risk Management Plans (EA)

The Flood Risk Management Plans (FRMPs) published by the Environment Agency to cover the 2021-2027 period set out how organisations, stakeholders and communities can work together to manage flood risk in England. These strategic plans explain the objectives and measures needed to manage flood risk at a national and local level and presents areas of focus for both fluvial and surface water flood risk.



The Thames River basin district flood risk management plan presents four flood risk areas within the borough:



These areas are to be taken into consideration in the development the Local Flood Risk Management Strategy and during the identification stages of flood mitigation work in the borough.

## Catchment Flood Management Plans (EA)

The Catchment Management Plans (CFMP), published by the Environment Agency in 2009, consider all types of inland flooding (from rivers, groundwater, surface water and tidal flooding). The CFMPs also include the likely impact of climate change, how land can be used and managed to mitigate flood risk and how areas could be developed to meet our present-day needs without compromising the ability of future generations.

The Thames Catchment Flood Management Plan gives an overview of flood risk across the catchment over the next 50 to 100 years. The Thames CFMP identifies the Royal Borough of Windsor & Maidenhead as one of the most at-risk areas in the catchment with over 5000 properties at risk of flooding.

## Local Nature Recovery Strategy

The Berkshire Local Nature Recovery Strategy (LNRS), published in October 2025 sets out the priorities for habitat areas in the County. The LNRS has identified which areas are suitable for specific habitat improvements including wetlands and river environments.

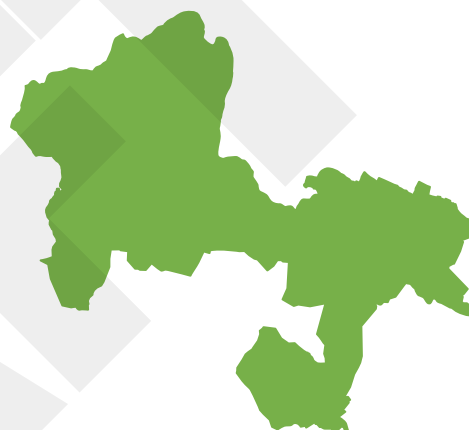
These locations, defined by the LNRS, can be used within the development of flood mitigation works to scope additional benefits into schemes from the beginning.

## Local

There are several plans that have been developed, or are in development, within the Royal Borough of Windsor & Maidenhead. These include council policies and strategies and those held by other organisations such as parish councils.

## Borough Local Plan

The Royal Borough of Windsor & Maidenhead Local Plan (2013-2033), adopted in 2022, has policies devised to ensure appropriate and sustainable development takes place within the borough. This includes several flood related policies which are set out below:



Borough Local Plan Policy	Description
QP2 – Green and Blue Infrastructure	This policy promotes the use of Green Blue Infrastructure such as sustainable drainage features. This is to secure multiple benefits to development such as biodiversity, recreational, health and well being and other environmental benefits in addition to flood risk mitigation.
NR1 – Managing Flood Risk and Waterways	This policy defines the restrictions on development with regard to building In River Flood Zones (2 and 3).

There is a planned update of the Borough Local Plan in the coming years. This strategy will be updated accordingly and will be fed into the evidence base for its development.

## Strategic Flood Risk Assessment (2017)

During the development of the current Borough Local Plan, a Strategic Flood Risk Assessment (SFRA) was undertaken to help inform the policy development of the BLP, acting as the basis for the sequential testing for site allocations.

The SFRA undertakes an analysis of flood risk across the borough to identify the properties at risk of flooding from all sources and contains details of historic flooding incidents within the borough.

## Preliminary Flood Risk Assessment

Separate to the Strategic Flood Risk Assessment is the Preliminary Flood Risk Assessment (PFRA), initially undertaken in 2011 and updated in 2017. This document has been created to look at flood risk across the borough now and into the future with climate change. This data is then used to identify any areas of significant flood risk.

The RBWM PFRA has identified two areas of significant flood risk. These areas are:

- Maidenhead for risk of flooding from surface water flooding.
- Windsor for risk of flooding from surface water flooding.

Following the UK leaving the EU on 1st January 2024, the requirement to update the PFRA was removed with the revoking of the Flood Risk Regulations (FRRs). This document will therefore no longer be updated; however, these risk areas have been picked up by the Flood Risk Management Plans as mentioned earlier.

## Environment and Climate Strategy

The Royal Borough of Windsor & Maidenhead Environment and Climate Strategy sets out how the borough plans to react to the challenges of climate change. The Environment and Climate Strategy sets out five Strategic Principles, some of which have clear links to flooding with possible climate adaptations.

Climate adaptations are works undertaken to mitigate the impact of a changing climate, of which one impact is more regular flooding. As summer storms get more severe and winters become longer and wetter generally, the risk of flooding from all sources is becoming reality on a more regular basis. As such, works to mitigate the risk of flooding are essential to protect property and critical infrastructure however they also have other significant benefits for wider climate impacts. The use of sustainable drainage measures, such as tree pits and rain gardens, in the urban parts of the borough can help to increase biodiversity and amenity value of highways through increasing the amount of vegetation in what would normally be a built up and concrete filled space. Where these features are used close together, they can also help to improve the urban heat island effect with vegetation known to cool urban areas in summer months.

As such, integration of these works in projects across the council is essential for their widespread delivery.



## Appendix D - Risk Management Authorities and groups with roles related to flooding in the Royal Borough

The below table details the Risk Management Authorities and groups that have roles and responsibility linked to local flood risk in the borough.

Royal Borough of Windsor & Maidenhead	The council has several roles which give it responsibilities for managing the risk of flooding to different aspects of the Borough. These roles include: The Lead Local Flood Authority, Emergency Planning Authority, Local Highway Authority and Local Planning Authority.
Lead Local Flood Authority	As the Lead Local Flood Authority, the Royal Borough of Windsor & Maidenhead are responsible for managing flood risk from surface water, groundwater and ordinary watercourses within the borough.
Joint Emergency Planning Unit (JEPU)	The Joint Emergency Planning Unit coordinates the council's readiness and ability to respond to emergencies and supports the community in the recovery from flooding incidents.
Local Highway Authority	The local highway authority is responsible for maintaining most roads within the Royal Borough.
Local Planning Authority	The local planning authority consults the Lead Local Flood Authority to ensure drainage has been considered in planning application.
Environment Agency	The Environment Agency are responsible for flood risk management from main rivers, reservoirs and the sea. The EA also notify the public of any future flood warnings.
National Highways	National highways are responsible for maintaining England's motorways and major roads.
Thames Water	Thames Water are responsible for managing the risk of flooding from public sewers (as defined in the Water Industry Act 1991). This can include from surface water, foul water and combined sewers.
Riparian Owners	Landowners whose properties are adjacent to or border a river, stream or ditch are responsible for maintaining the bed and banks of the watercourse and ensuring there is no obstruction, diversion, or pollution to the flow of the watercourse.
Residents and businesses	Residents and business owners are responsible for protecting their assets from flooding.
Parish councils	Parish councils have no formal duties in the management of flood risk but establish local groups, develop community flood plans and raise awareness of flooding and flood responses within the community.
The Thames Regional Flood and Coastal Committee (RFCC)	The Royal Borough of Windsor & Maidenhead is covered by the Thames RFCC, which is primarily responsible for ensuring there are coherent plans to identify, communicate and manage the risk from all sources of flooding and coastal erosion risk within the Thames region.
Thames Valley Local Resilience Forum	The Resilience Forum is not a statutory body. It is the agreed forum that co-ordinates multi-agency emergency preparedness, including risk assessment, contingency planning, training, and exercises to enhance the borough's preparedness for emergencies.
Royal Borough Flood Liaison Group	The Royal Borough Flood Forum provides a forum for sharing information and knowledge within the community. Chaired by a borough councillor, the forum comprises ward councillors, representatives from the Parish Flood Group and residents' associations, and officers from the Environment Agency, Thames Water and the Royal Borough.
Residents Associations	The borough has several residents' associations which comprise members of the community in a geographical location, who work to address issues within their community.
Developers	Developers are responsible for properly considering flood risk to ensure occupants of new developments are not at risk, and flood risk is not increased elsewhere.

## Appendix E - Governance of the Local Flood Risk Management Strategy

The Local Flood Risk Management Strategy, following publication must be monitored to ensure that the objectives and action plans are being carried out and achieved. There is also a need for regular reflections to ensure that the strategy reflects changing legislation and priorities. As such, the Local Flood Risk Management Strategy is a living document to allow for these small updates to be implemented and included.

To oversee this work, a governance structure is needed, and this is set out below:



### Flood Liaison Group

The Flood Liaison Group is a forum for parish councils to discuss flood issues across the borough with officers from Risk Management Authorities. This group helps to promote the implementation of permanent and sustainable solutions to different flood risk issues while also promoting important messages to interested stakeholders.

The Flood Liaison Group will receive regular updates on the progress of the deliverables of the strategy as well as receive a copy of the annual report sent to Place Overview and Scrutiny to note where questions can be received.

### Place Director Leadership Teams

The council will make use of existing structures to ensure strategic oversight of the strategy is achieved. This will be achieved at several levels:

- The strategy will report regularly into senior managers within the Placemaking, Partnerships and Sustainability Service, ensuring regular oversight on key actions is achieved.
- If there is a need for escalation of issues for actions to be progressed, there is an opportunity for these to be brought to the Place Directorate Leadership Team. This group includes all key areas across the Place Directorate, including Planning and Highways.
- The annual report will be brought to Extended Place Directorate Leadership Team meetings to present progress in the year and identify areas for movement in the coming year and what support it required. The annual report will also be made available for Place Overview and Scrutiny panel and the Flood Liaison Group as public meetings as a further opportunity for review.

If it is felt that this process does not provide the needed level of oversight for delivery of the strategy, additional measures will be considered to increase oversight and scrutiny of delivery.

## Place Overview and Scrutiny

The Place Overview and Scrutiny Panel is one of three panels which provides feedback and scrutiny on the development and implementation of work undertaken within the Place Directorate.

The Panel will receive an annual report into the progress of the Local Flood Risk Management Strategy, including what work has been undertaken to implement the objectives and action plans, as well as explanations into any changes required to be made to the strategy over the last year.

The report is to be initially noted by the panel however officers will be made available if the panel deem it necessary to have further discussion at a public meeting.

The Flood Liaison Group will also be copied into the annual report.

## RBWM Cabinet

The Cabinet of the Royal Borough of Windsor & Maidenhead provides the final approval of ahead of publication of the updated Local Flood Risk Management Strategy. Progress of the Strategy is reported regularly to the relevant Portfolio Holder.

## Appendix F - Prioritisation of Flood Risk Schemes

With limited resources, it is vital that a prioritisation process is in place to inform decision making around locations to allocate capital funding to. The Flood Risk Team have two main types of projects which have the aims of mitigating the impact of flooding. These are:

- highway drainage works (both revenue and capital).
- flood risk mitigation schemes.

These projects are prioritised across a number of factors related to the flooding that is occurring in that area and then specific areas relevant to the different types of projects.

In both of these processes, the team uses prioritisation scoring systems to produce an indicative priority score for projects. This then is used as a basis to aid identification of projects and programming works. This is not the only factor considered however as budget levels through the year, feasibility of completion and other factors are also taken into account when making the final decisions on which projects are progressed.

The sections below will run through the current scoring matrixes and factors that make up the scoring system. These are live documents and are regularly stress tested to ensure it is putting forward those projects in need of completion, but additional scoring factors are added whenever it is deemed appropriate.

### Highway drainage works

Highway drainage works are prioritised with the same process for both revenue and capital works. This is to ensure consistency across all works and provides justification for works taken forward or whether they are not.

The scoring factors and available scores are listed below:

Factor Type	Factor	Scoring System
Safety factors	Speed of the road	<ul style="list-style-type: none"><li>• 20mph – 1 point</li><li>• 30mph – 2 points</li><li>• 40mph – 3 points</li><li>• 60mph – 4 points</li><li>• National Speed Limit – 5 points</li></ul>
	Close in proximity to a school	<ul style="list-style-type: none"><li>• Yes – 2points</li><li>• No – 0 points</li></ul>
	Access issues caused by flooding	<ul style="list-style-type: none"><li>• No – 0 points</li><li>• Commercial Properties – 2 points</li><li>• Habitable Properties – 3 points</li><li>• Critical Infrastructure – 5 points</li></ul>
	Includes sinkholes/collapses	<ul style="list-style-type: none"><li>• No – 0 points</li><li>• Small hole in carriageway – 2 points</li><li>• Sinkhole/Collapse – 4 points</li><li>• Void under highway – 5 points</li></ul>

Factor Type	Factor	Scoring System
Impact factors	Extent of flooding to highway	<ul style="list-style-type: none"> <li>• None – 0 points</li> <li>• Less than half carriageway – 1 point</li> <li>• Half carriageway – 3 points</li> <li>• Whole carriageway – 5 points</li> </ul>
	Properties internally flooded related to issue	<ul style="list-style-type: none"> <li>• No – 0 points</li> <li>• Yes – 5 points</li> </ul>
	Properties externally flooded related to issue	<ul style="list-style-type: none"> <li>• No – 0 points</li> <li>• Yes – 2 points</li> </ul>
	Number of properties impacted by flooding	<ul style="list-style-type: none"> <li>• None – 0 points</li> <li>• 1 property – 1 point</li> <li>• 2-5 properties – 2 points</li> <li>• 6-10 properties – 3 points</li> <li>• More than 10 properties – 5 points</li> </ul>
	Frequency of flooding	<ul style="list-style-type: none"> <li>• Once a year – 1 point</li> <li>• Twice a year – 2 points</li> <li>• 3 to 5 times per year – 3 points</li> <li>• 5 to 10 time per year – 4 points</li> <li>• More than 10 times per year – 5 points</li> </ul>
Other factors	Political interest in issue	<ul style="list-style-type: none"> <li>• No – 0 points</li> <li>• Yes – 1 point</li> </ul>

These scores provide schemes with a maximum score of 40.



## Flood risk mitigation schemes

Flood risk mitigation schemes, linking into Objective 7 of the Local Flood Risk Management Strategy, is specifically looking at where projects can be done to mitigate flood risk across the borough.

A similar approach to that used for highway drainage works is used for this prioritisation process however some additional factors have been considered to feed into the funding opportunities that are available, e.g. co-benefits that could be delivered.

This prioritisation process is likely to evolve over the next 12 to 18 months as understanding of the new funding rules for DEFRA Flood Defence Grant in Aid, starting in April 2026, continues to be built.

The current scoring factors and available scores are listed below:

Factor Type	Factor	Scoring System
Impact factors	Properties internally flooded	<ul style="list-style-type: none"> <li>No – 0 points</li> <li>Yes – 5 points</li> </ul>
	Number of properties internally flooded	<ul style="list-style-type: none"> <li>None – 0 points</li> <li>1 property – 1 point</li> <li>2-5 properties – 2 points</li> <li>6-10 properties – 3 points</li> <li>More than 10 properties – 5 points</li> </ul>
	Properties externally flooded related to issue	<ul style="list-style-type: none"> <li>No – 0 points</li> <li>Yes – 2 points</li> </ul>
	Number of properties impacted by flooding	<ul style="list-style-type: none"> <li>None – 0 points</li> <li>1 property – 1 point</li> <li>2-5 properties – 2 points</li> <li>6-10 properties – 3 points</li> <li>More than 10 properties – 5 points</li> </ul>
	Frequency of flooding	<ul style="list-style-type: none"> <li>Once per year – 1 point</li> <li>Twice or three times per year – 3 points</li> <li>More than three times per year – 5 points</li> </ul>
	How recently has flooding occurred?	<ul style="list-style-type: none"> <li>Before 2000 – 0 points</li> <li>In last 25 years – 1 point</li> <li>In last 10 years – 2 points</li> <li>In last 5 years – 3 points</li> <li>In last 2 years – 4 points</li> <li>Within the last year – 5 points</li> </ul>
	Includes flooding to highways	<ul style="list-style-type: none"> <li>No – 0 points</li> <li>Yes – 2 points</li> </ul>
	Extent of highway flooding	<ul style="list-style-type: none"> <li>None – 0 points</li> <li>Less than half carriageway – 1 point</li> <li>Half carriageway – 3 points</li> <li>Whole carriageway – 5 points</li> </ul>
Safety factors	Close in proximity to a school	<ul style="list-style-type: none"> <li>Yes – 2points</li> <li>No – 0 points</li> </ul>
	Access issues caused by flooding	<ul style="list-style-type: none"> <li>No – 0 points</li> <li>Commercial Properties – 2 points</li> <li>Habitable Properties – 3 points</li> <li>Critical Infrastructure – 5 points</li> </ul>
Benefits factors	Opportunities to include biodiversity improvements	<ul style="list-style-type: none"> <li>No – 0 points</li> <li>Yes – 3 points</li> </ul>
	Opportunities to include biodiversity improvements	<ul style="list-style-type: none"> <li>No – 0 points</li> <li>Yes – 3 points</li> </ul>

These scores provide schemes with a maximum score of 47.