



HILLINGDON
LONDON

Flood Action Plan



Flood and Water Management

Residents Services

May 2021

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Introduction

In 2010, the Flood and Water Management Act was given Royal Assent. This provided clarity as to the roles of the different organisations with responsibilities for managing flood water; importantly, it introduced Lead Local Flood Authorities.

As a Lead Local Flood Authority, the Council has been working over the past 10 years to understand the risk of flooding from various sources, investigate significant flood incidents and implement measures to reduce the risk of flooding. The Council also uses its position to secure action from other organisations who have responsibility for flood risk management. The strategy for delivering these responsibilities is set out in a portfolio of flooding documents held on the Council website¹.

In a changing climate there has been an increased burden on many council services due to flooding in recent years. In March 2021, Hillingdon Council published its draft Strategic Climate Action Plan to set out the actions that will be carried out to meet the vision of becoming “*the greenest London borough, to protect and enhance the environment, and to provide a brighter prospect for future generations.*”

The management of flood risk is covered in the draft Strategic Climate Action Plan under Objective C6 – Climate Change Adaptation and Mitigation. More specifically, C6.2 states the need:

To ensure the Council’s flood resilience and management work incorporates a changing climate and that the Council’s own land and property decisions consider the need to make space for water.

The Environment Agency have also produced a new [National Flood Risk and Coastal Change Strategy](#) (2020)². This sets a vision: A nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100.

The National Strategy has three core ambitions concerning future risk and investment needs:

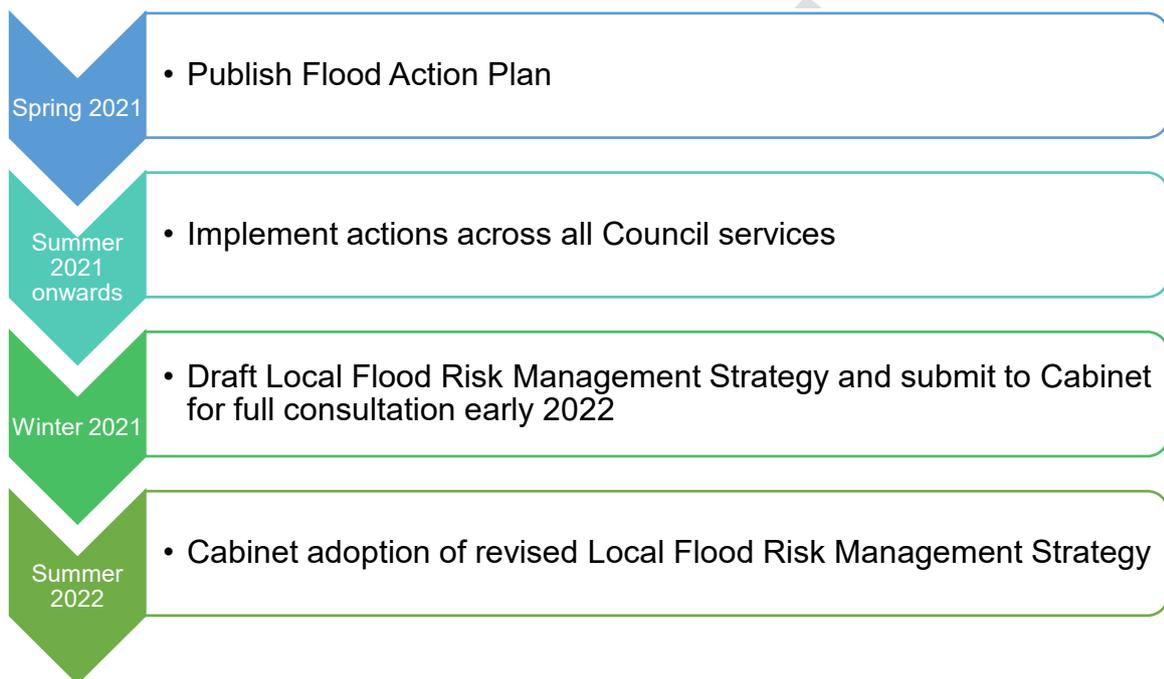
1. **Climate resilient places:** working with partners to bolster resilience to flooding and coastal change across the nation, both now and in the face of climate change.
2. **Today’s growth and infrastructure resilient in tomorrow’s climate:** Making the right investment and planning decisions to secure sustainable growth and environmental improvements, as well as resilient infrastructure.
3. **A nation ready to respond and adapt to flooding and coastal change:** Ensuring local people understand their risk to flooding and coastal change and know their responsibilities and how to act.

¹ www.hillingdon.gov.uk/flooding

² [National Flood and Coastal Erosion Risk Management Strategy for England - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/531212/national-flood-risk-and-coastal-change-strategy-2020.pdf)

The Council is required to plan for flooding on a 6 year cycle. The Council has a Local Flood Risk Management Strategy which was adopted in 2016. This strategy is due to be reviewed and refreshed by mid-2022. This is a statutory plan that will be part of a full consultation with residents and key stakeholders and will set out the strategic objectives for the coming years. This strategy will also include the detailed actions which will be reviewed annually.

This Flood Action Plan is intended to reaffirm the current actions in relation to flood risk management and paves the way towards a refreshed draft Local Flood Risk Management Strategy (LFRMS). It provides the current context for flood risk management ahead of revising the strategy by mid-2022.



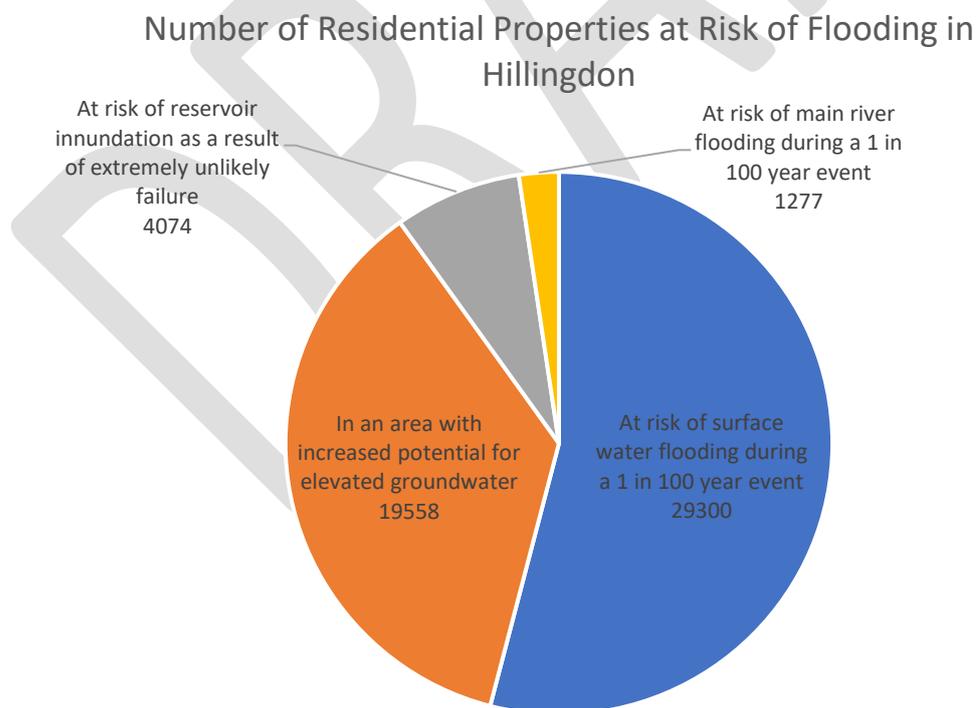
Flood risk context

The Council has various roles in managing flood risk introduced by the Flood and Water Management Act 2010. As a Lead Local Flood Authority (LLFA) takes a lead on flood risk associated with surface water, groundwater, and ordinary watercourses. As a Highways Authority, the Council also has the separate responsibility for managing the risk of flooding on adopted highways. These roles are defined as Risk Management Authorities (RMA).

The Environment Agency is the lead authority for Main Rivers (e.g., the River Pinn, Yeading Brook, River Crane and River Colne) as well as reservoir flooding. Thames Water is responsible for managing foul and surface water but to limited design standards. All these authorities have a statutory duty to cooperate in collectively managing the risk of flooding from all sources.

The Council is also a major landowner with riparian responsibilities for a significant area of water infrastructure, including reservoirs like Ruislip Lido, rivers such as the River Pinn, and lakes such as at Little Britain.

Hillingdon is the second largest London borough and has potentially over 30,000 residential properties currently at risk of flooding³. With over 180km of ordinary watercourses draining less permeable clay soils, often flowing through dense residential areas in ageing infrastructure, there are challenging constraints to managing flood risk.



Properties at risk of flooding (note some properties will be at risk from multiple sources)

³ For a rainfall event with a 1% chance of occurring in any given year according to the Surface Water Management Plan (2011)

The council is aware of flooding across the borough stretching back over 100 years, although the most comprehensive records are from the last 8 years. Residents and businesses are at risk from a number of sources and are becoming more exposed to the possibility of flooding due to changes in climatic patterns, for example an intense summer rain shower, which can occur any time from June to October, or a large winter storm from the Atlantic.

While there was extensive flooding across the Borough in 1977,1988 and in the early 2000s, more significant flooding has recently occurred. In the winter of 2013/14, 26 residential properties, 7 businesses and 4 schools/ educational facilities were affected by flooding externally. In June 2016, 86 properties flooded internally and in October 2019 12 residential properties and 7 businesses flooded. Recently, properties have been flooded and many evacuated in October 2020 and January 2021.

The reports and trends of these flooding events indicate surface water incidents, which impact small groups of residents in multiple locations across the Borough. Heavy rain builds up on roads or saturated ground and is not able to drain away through constrained infrastructure. These events are not designated major incidents but are happening more frequently, and this trend is likely to increase.

In addition to residential properties, there are businesses, community facilities and infrastructure at risk of flooding that are important to Hillingdon residents, many of which have flooded in the past.

- **Schools** – including Whiteheath Infant School, Queensmead School, Bourne Primary School, Barnhill Community High, Charville Primary School, Coteford Infant School.
- **Leisure facilities** - including Eastcote Lawn Tennis Club, public parks such as Bessingby Park, Pinn Meadows and Elephant Park, and various allotment sites.
- **Commercial properties** – including Ruislip Manor town centre and Victoria Road Retail Park, South Ruislip.
- **Transport infrastructure** - including Ruislip Manor Underground Station, A40 at Hillingdon Circus and RAF Northolt, and M4 at Shepiston Lane, Hayes.

Recent flood events have highlighted current limitations in the availability of warnings prior to flood events, both to residents and to council services. Flood awareness and preparedness in the community and within council services is becoming increasingly important. The management of flood risk is also complicated by the myriad of different organisations each with different areas to lead on. It is far from straightforward to identify the difference between surface water flooding (the Council takes the lead on but is predominantly managed by private water bodies) and river flooding (the remit of the Environment Agency).

As the primary point of contact with residents, the Council takes a leadership role in establishing collaboration across the responsible authorities to ensure a joined up approach to flood risk management. Beyond that, there is a role for everyone to understand the causes and impacts of flooding to ensure that there is widespread contribution to managing the problem.

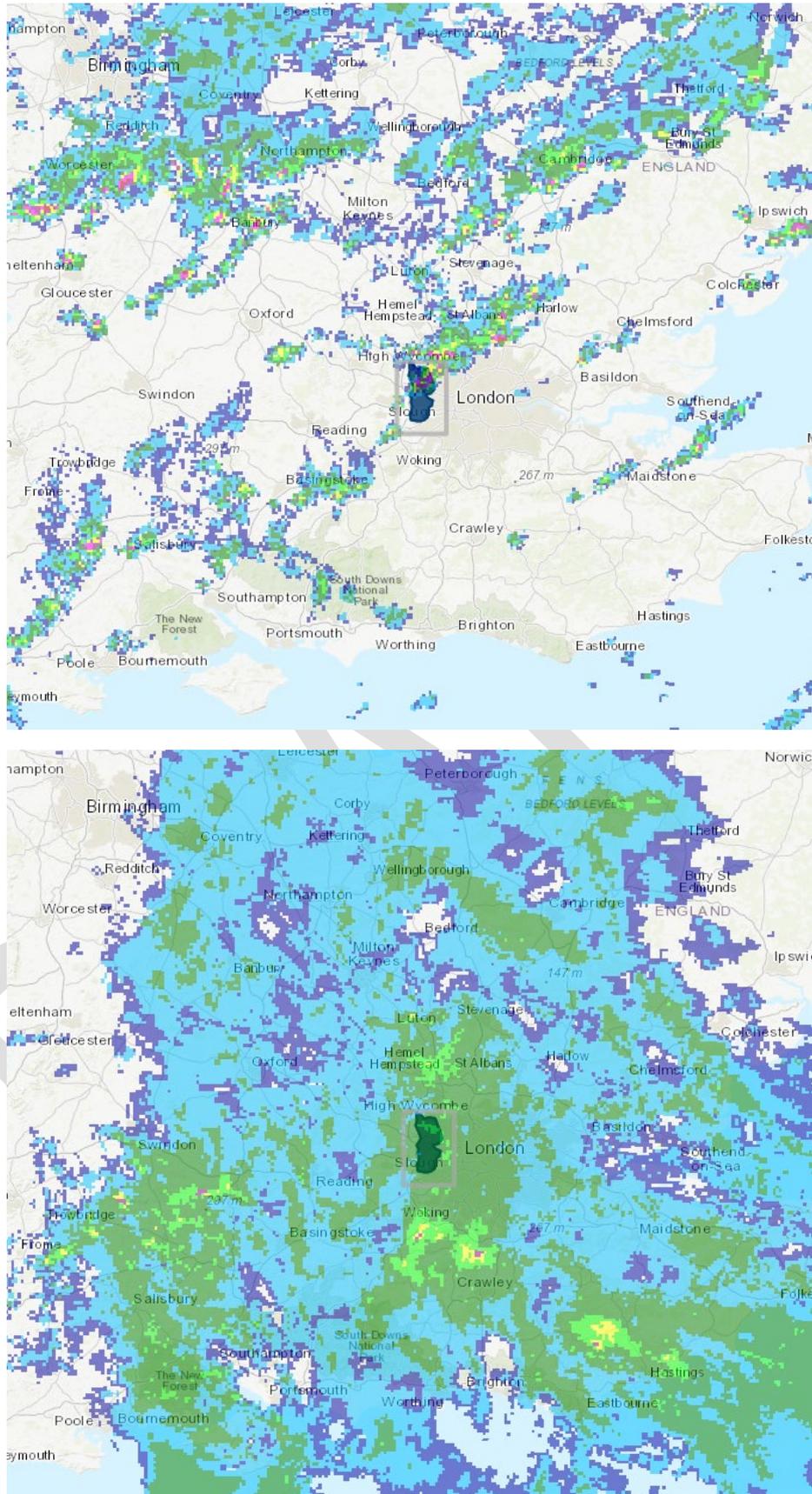
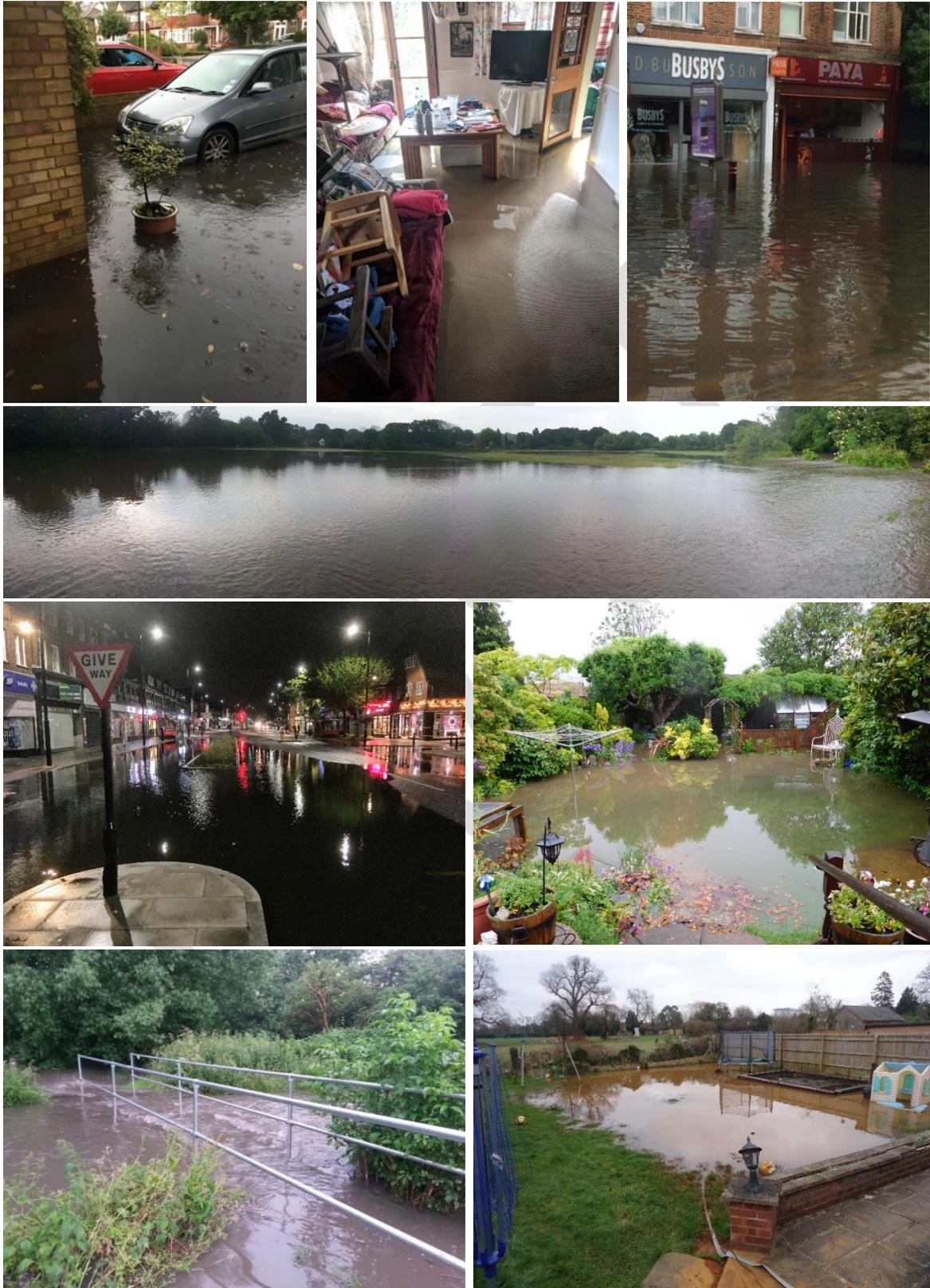


Figure showing difference in extent of rainfall between summer (left) and winter (right) rainfall events that have affected residents on 1st October 2019 and 28th January 2021, respectively.



A selection of photographs showing the impacts of flooding on communities across the Borough.

Climate change impacts

The headline impact of climate change on rainfall in London assumes less rainfall in the summer but concentrated into more intense showers, and for more rainfall over winter months. Climate change is already impacting on the risk of flooding in Hillingdon with a noticeable increase in the frequency and intensity of summer rainfall events and wetter winters in recent years.

Climate Change Effect	Impact to residents	Impact to Council
Intensity of summer rainfall events projected to increase by 40% ⁴	<ul style="list-style-type: none"> • More frequent events • Probability of extreme events occurring will increase. 	<ul style="list-style-type: none"> • Increased no of Flood Investigations • Reduced time to prepare to respond to warnings and act.
Summer rainfall will be lower overall.	<ul style="list-style-type: none"> • Ground will be drier on average which will result in compaction and increased runoff. • Water supplies may be affected. 	<ul style="list-style-type: none"> • Water supplies may be affected. • Drought impacting services such as Green Spaces. • Vulnerable residents more at risk requiring more support.
Overall winter rainfall will increase by 40% ⁵	<ul style="list-style-type: none"> • Risk of groundwater flooding will increase, with saturated ground in the winter much more likely. 	<ul style="list-style-type: none"> • Increased issues of standing water in residential gardens or on roads requiring attention.
Significant winter storms are 25% more likely.	<ul style="list-style-type: none"> • More frequent fluvial events. • Smaller watercourses and catchments previously not affected during winter will start to be affected. 	<ul style="list-style-type: none"> • Increased need for coordination with Environment Agency for main river flooding

With many more properties at risk of flooding by 2050 due to the projected impacts of climate change, the Council needs to ensure that flood risk action is embedded across all services to deliver the scale of the work needed. Opportunities to reduce flood risk and increase flood resilience to communities must be taken in all projects the Council delivers.

The primary principle is to hold water back in times of heavy rain thus reducing the speed water reaches drainage systems. It must be noted though that it is not possible to protect

⁴ Upper end total potential change anticipated for the '2080s' (2070 to 2115). Source: [Flood risk assessments: climate change allowances - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444444/flood_risk_assessments_climate_change_allowances_-_gov.uk.pdf)

⁵ Met Office UKCP projections in a 4 degrees warming scenario.

residents and businesses from every storm event. It is therefore necessary to ensure that the at risk areas are identified and residents and business are prepared for flood events.

Additionally, The Climate Change Action Plan C6.3 includes the wider objective to *“run a campaign to raise awareness for the need to be better prepared for a changing climate.”*

Whilst this relates to climate change adaptation more widely, flooding is important to include to ensure residents are aware of the risk and what they can do about the risks they face and the impact of climate change.

There are other impacts of climate change projections that will change the way water is managed in Hillingdon including:

- **Drought** – reduction in summer rainfall will reduce the availability of water for environmental low flows leading to reduced dilution of effluent and strained habitats for freshwater species.
- **Temperature extremes** – species in river systems are sensitive to temperature extremes and are likely to be affected by increased water temperatures.
- **Habitat diversity** – a changing climate will affect the plant species that thrive in habitats, including an increased threat of invasive species. Those that live in isolation and are not connected to other populations will have increasing difficulty in being resilient to the increasing temperature and increasing likelihood of drought.
- **Pollution** – more frequent intense rainfall events will lead to an increase in sewer overflows, run off from highways and exacerbate issues with sewer blockages and foul misconnections.

Statutory actions

There are several ongoing actions that the Flood and Water Management team in the Council has been implementing that relate to the statutory responsibilities contained in the Flood and Water Management Act (2010).

Local Flood Risk Management Strategy

The adopted [Local Flood Risk Management Strategy](#) and accompanying [Objective and Measures](#) (Published in 2016) sets out how the risk of local sources of flooding (such as surface water, groundwater and from ordinary watercourses) is managed in the Borough and is due for a review in 2021/2022. Although the strategy is robust and still relevant, there are additional obligations in the updated [National Flood Risk Management Strategy](#) (September 2020) on a LLFA that need to be reflected in the local strategy. Recent significant flooding events and an updated program of projects further add to the need to comprehensively review the strategy by mid-2022. These changes also make it necessary to reaffirm the position in this Action Plan ahead of that statutory plan.

ACTION FL1 – By mid 2022 an updated Local Flood Risk Management Strategy will have been consulted on and adopted by the Council. This strategy will align with new national obligations, incorporate current projects and priorities, reflect climate change projections and ensure recent significant events are captured.

There will be a full consultation on this strategy, supported by a robust communication plan that will invite widespread engagement

Flood incidents and investigations

The council has a statutory duty to investigate significant flooding and publish the report under Section 19 of the Flood and Water Management Act (2010). The purpose of a Flood Investigation is to determine the roles of the Risk Management Authority and whether lessons can be learned or where improvements can be made to reduce the risk of repeat events. Flood investigations take time to compile due to the need to collect reports from different organisations and to consult with affected residents.

ACTION FL2 – By autumn 2021 the investigations from recent events including winter 2020/21 will be prepared.

In a changing climate, projections show that the likelihood of rainfall events that would significantly affect residents will continue to increase. The burden on the Council to investigate significant flooding will therefore increase and efficiencies in the mechanisms for reporting, sharing, and reporting of flood incidents between RMAs (Risk Management Authorities) and internal services should be explored (e.g. [FORT - Home \(geowessex.com\)](http://geowessex.com)).

ACTION FL3 – By autumn 2021 a refined method for recording, sharing and investigating flood incidents between Risk Management Authorities will be developed. Officers will work with partners to set up a regular forum of lead flood risk management authorities to reinforce the collaborative approach to managing flood risk.

Flood asset register

The council has a statutory duty to hold a register of significant flood assets under Section 21 of the Flood and Water Management Act (2010). While the current Flood Asset Register was published in 2014, a significant amount of work has been undertaken in the past 18 months to improve the breadth and quality of the information.

In a changing climate there will be an increased reliance on existing drainage infrastructure and structures – such as culverts, bridges, watercourses, and pumps – to convey water through the landscape in a way that minimises the impacts to residents and communities. It is highly unlikely that there will be wholesale upgrades to drainage and water management infrastructure over the coming years and therefore monitoring the condition and maintenance regime of existing flood assets is essential.

ACTION FL4 – By summer 2021 the revised draft Flood Asset Register will be shared with internal stakeholders (Green Spaces, Highways Structures etc.) and other statutory bodies (e.g. Transport for London) for comment and revision, with a deadline of autumn 2021 to publish a final Flood Asset Register.

Climate resilience places

Flood risk management projects

It is important to identify the right projects in the right areas to take forward and the Surface Water Management Plan (SWMP) for the Council (2011) reviewed the risk of surface water flooding to properties across the borough and identified Critical Drainage Areas focused on the clusters of properties at risk of flooding. Areas at risk of flooding are likely to be lower lying where water from various sources culminates.

Hillingdon Council has received funding from the Thames Regional Flood and Coastal Committee (TRFCC) to develop the SWMP and take a catchment approach to understanding where flood water was draining from, and prioritising resources across the Borough. Holding water back at the top of catchments can reduce the impacts in the low lying areas. Solutions therefore can be some distance from the impacted areas. Work to understand the flooding on a catchment basis is crucial to effective and efficient solutions.

A Catchment Management Plan will be published in phases and will replace the current SWMP. The conclusions of the Catchment Plan will form the basis of the projects over the next reporting period in the LFRMS.

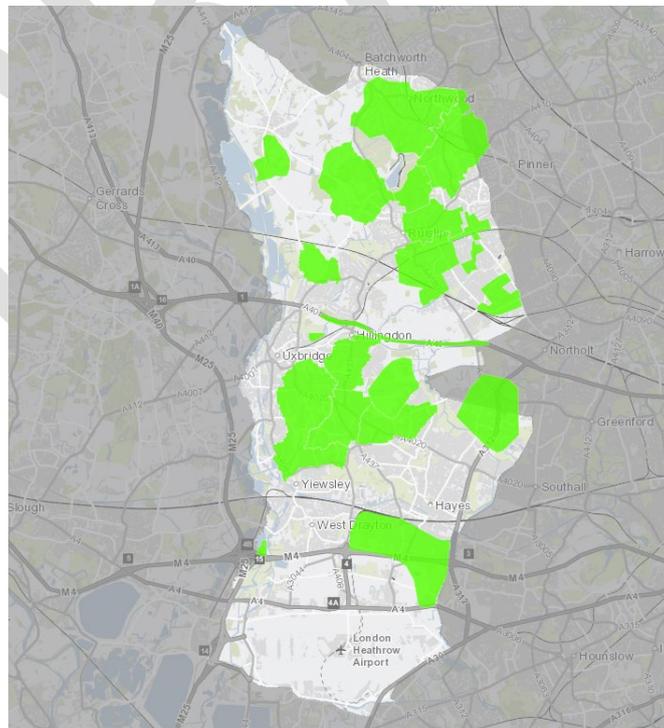
ACTION FL5 – By summer 2021, mapping outcomes from Phase 1 of the Hillingdon Catchment Management Plan will be published online to show the drainage catchments across the Borough and the flooding hotspots.

ACTION FL6 – By autumn 2021 Phase 2 of the Catchment Management Plan will be published to identify the prioritised ranking of catchments and the recommended actions against each of those catchments.

The objectives in the first and current Local Flood Risk Management Strategy have forged the way for the Council to have secured approximately £1m of funding from the TRFCC over the last 3 years to reduce the risk of flooding to the residents. The Council will continue to deliver projects in line with the adopted strategy (2016) and with a view to longer term actions to be captured in the updated strategy.

There is a list of active projects on the Council website, and more recently a refreshed list of projects was discussed at the Residents Education and Environment Services Committee, Tuesday 20th April. The REESPOC report can be found in Appendix A which contains a snapshot summary of the current projects and key ongoing actions. To ensure areas of interest for potential projects are easily identifiable, a map is being developed to highlight these areas, an extract of what this will look like is shown below. A refreshed interactive summary of current projects and past actions will be published on the flooding page of the Council website.

ACTION FL7 – By summer 2021 the Flood and Water Management Project ‘StoryMap’ will be made publicly available via the Council Flooding website.



Areas covered by past, current or future flood risk management projects.

An internal log of actions completed and actions to be undertaken will also be reviewed monthly with the Cabinet Member for the Environment. This log will include the locally specific and overall outcomes of each flood investigation to ensure that all Risk Management Authorities are held to account on their obligations.

ACTION FL8 – The Flood and Water Management team will provide a flood action log and report monthly on it to the cabinet member for the environment. This will provide a forum for capturing emerging actions and ensuring work to protect residents and business is appropriately focused.

As well as implementing its own schemes on the ground, the Council will continue to work hard to secure additional funding for projects to maintain a programme of actions into the future. In the coming fiscal year just under £1m of funding has been programmed by the TRFCC subject to providing the necessary evidence to the Environment Agency for projects across the Borough. Officer time is required to review the status of future funding, as well as compiling the necessary documentation to receive the funding.

ACTION FL9 – By summer 2021 the future funding programme will be reviewed alongside the Environment Agency to ensure that the allocations reflect the areas at highest risk of flooding where schemes will be brought forward.

The Environment Agency is currently leading on two Main River flood risk management projects in the Borough, Park Wood and Pinn Meadows in Ruislip and the Lower Pinn in Ickenham/Uxbridge/Yiewsley.

The Environment Agency also have several duties and powers to undertake maintenance works on main rivers, some of the information can be found on the published [Asset Information and Maintenance Programme \(data.gov.uk\)](#) However, to many residents this process is not transparent enough.

In addition, Thames Water is responsible for managing the risk of flooding from sewers, including foul sewer and surface water sewers. Thames Water is currently developing its Drainage and Wastewater Management Plan. There are unresolved issues with the transparency of information between Thames Water and the Council on areas such as asset condition and properties affected by sewer flooding.

ACTION FL10 – Officers will continue to work with other organisations such as Thames Water and the Environment Agency to ensure they also develop projects and work with the Council to reduce risk of flooding to residents.



A selection of photographs showing interventions to improve flood resilience.

Responding to flooding

As confirmed to REESPOC, Council services have been developing Incident Flood Plans to ensure that their services are resilient to flooding. The primary services where Incident Flood Plans are important are Highways, Green Spaces, Housing/Estates and Education and resident facing services such as the Contact Centre.

Incident Flood Plans will show how the service will respond to incidents both in and out of hours, highlighting key known flood risk hotspots and setting out a clear process of response, as well as provide, encourage, and support recovery following a flood event.

There is also now a specific duty for large reservoir owners to create and submit an onsite Flood Plan⁶. The Council will therefore have to produce a plan for Ruislip Lido which is designated a large reservoir.

ACTION FL11 – Work will commence on the Flood Plan for Ruislip Lido as required by the April 2021 Ministerial Directive.

The Flood and Water Management Team will lead on the coordination of Incident Flood Plans for various services across the Council to identify improvements to managing flood risk management within current budgets.

The Flood and Water Management Team will continue to apply and secure funding to identify and implement projects that will assist services with the management of flood risk.

Council services and residents are reliant on the national weather and flood warning services for information on the likely occurrences of flooding events. Recent flood incidents have highlighted the localised nature of flooding, as well as the lack of bespoke warning tailored to the conditions of specific catchments. The Council is leading on an innovative project to increase local monitoring and warning capacity, combining the warning systems of Hydromaster and the monitoring systems of Datasphere; being forewarned allows for individuals to be prepared, for example through the installation of temporary flood gates, securing belongings on ground floors or organising accommodation elsewhere.

ACTION FL12 – By summer 2021 the number of local water level monitoring gauges will have increased to 8 (procured through grant funding), with the data shared to local residents' groups. In addition, warnings generated within Hydromaster will be shared with internal officers and work will commence with the communications team regarding the ability to disseminate more effective warnings.

⁶ [Reservoir on-site flood plans: ministerial direction - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/ministerial-direction-on-reservoir-on-site-flood-plans)

Today's growth and infrastructure resilient in tomorrow's climate

Place making actions.

Current surface water drainage infrastructure is, in many places across the borough, at capacity during rainfall events each year. There are currently no proposals by Thames Water for significant upgrades to surface water sewers across the borough and therefore the effects of climate change will exacerbate the existing situation. The Council therefore needs to maximise opportunities for storing and holding water; removing impermeable surfaces from the surface water drainage system is a particular priority.

Sustainable drainage systems (SuDS) are required to be implemented in every new development and have also been shown to be a popular solution for town centre redevelopment, such as the award-winning rain gardens in Eastcote Town Centre. Schools such as Lake Farm and Ruislip High School have installed green roofs, Oak Wood and Swakeleys High Schools have integrated SuDS within their redevelopment. Retrofitting SuDS within Council owned land and as part of highways resurfacing, town centre projects, school redevelopments or on housing estates across the borough forms part of current guidance⁷ issued by the Mayor of London.

ACTION FL13 – The Flood and Water Management Team will continue to work with other services to identify opportunities for the use of SuDS within the Council's corporate estate and within existing resources (for example, where changes to the management of green spaces or highways can be altered to ensure water is held back from drainage systems). Where opportunities are identified outside existing budgets, these will be considered as part of proposals for the relevant Cabinet Members or Cabinet as appropriate.

There is a desire to reduce the rate and volume of runoff from land. This will ensure that the way land is managed in the future does not contribute to the impacts of climate change. There is a growing body of literature about 'working with natural processes' and implementing 'natural flood management' within landscapes to reduce the risk of flooding. Natural flood management has been implemented in Park Wood in Ruislip and will shortly be implemented in Mad Bess Wood.

The Strategic Climate Action Plan identifies the need for fresh approaches to land management to adapt to the changing climate. This will likely require more trees to be planted to offset carbon generation. Climate change is a global issue, the location of tree planting to offset carbon generation is highly flexible, however, planting of trees can also be a natural form of managing flood risk. Developing an approach to tree planting, as well as land management, in order respond to climate change will also factor in the more specific geographical requirements of managing flood risk.

⁷ [SuDS Sector Guidance | London City Hall](#)

ACTION FL14 – The Flood and Water Management Team will work closely with the Green Spaces team on methods and opportunities to review approaches to land management that have the dual benefit of meeting climate change actions as well flood risk reduction.

Making the right investment and planning decisions

The Council was involved in the production of the [West London Strategic Flood Risk Assessment](#) (2018) which informed the preparation of the Hillingdon Local Plan Part 2 and future planning decisions. Development should be directed away from areas at risk of flooding to protect the homes and livelihoods of future residents, reduce the burden on the emergency services as well as ensuring the risk of flooding does not increase for those already residing in these areas. Planning Officers should ensure they apply the guidance within the Strategic Flood Risk Assessment and flood risk advice from the Environment Agency and Lead Local Flood Authority.

ACTION FL15 – The Flood and Water Management Team will undertake refresher training for all planning officers particularly with a view to ensuring the Council's Strategic Climate Action Plan is incorporated into decision making.

Strategic infrastructure and green infrastructure planning should consider the need for climate resilience. Future reviews of Community Infrastructure Levy allocations for the capital programme should ensure that climate resilience for residents is one of the key priorities.

ACTION FL16 – Future strategic infrastructure reviews (including Green Infrastructure Strategies, Community Infrastructure Levy allocations and Strategic Infrastructure Plans) should consider the need for climate adaptation for the risk of flooding across the Borough.

A nation ready to respond and adapt to flooding.

Supporting flood action groups

To improve the awareness of flood risk in the community Council officers have supported the creation of Flood Action Groups (FLAGS) in flooding hotspots areas, with four formal groups in existence. These groups have been a positive channel for sharing updates on projects as well as maintaining strong and inclusive links to the community. The existing groups should continue to be supported, and new groups should be promoted within affected communities.

ACTION FL17 – The Flood and Water Management team will continue to support the work of existing Flood Action Groups across the Borough and will work closely with the Cabinet Member for the Environment to identify further opportunities ahead of the LFRMS consultation.

Communication with residents

Recent flood events have highlighted the need for consistent and accurate messaging from authorities responsible for managing flood risk. An improved catalogue of communications material that is available during flood events, such as social media posts, contact centre advice and on the ground reports of officer work will be developed.

To have a consistent and strong message from the Council related to the management of flood risk, a communications campaign will be implemented over the next 12 months.

ACTION FL18 –An online communications campaign will be developed to enhance the communications output from the Council to residents and businesses. A bespoke social media campaign will be launched ahead of the ‘rainy season’ in October.

Monitoring and reporting

In addition to the monthly monitoring of the internal Flood Action Log with the Cabinet Member for the Environment, an annual report will be published to set out the progress against this Flood Action Plan, report on project progress and discuss completed or ongoing flood investigations.

ACTION FL19– By autumn 2021 an annual flood risk monitoring report will be submitted to REESPOC/Cabinet to summarise the previous 12 months.

Register of actions.

Action	Description	Service Support	Due by
FL1	Prepare Revised Local Flood Risk Management Strategy	FWM	Winter 2021
FL2	Publish Flood Investigation Reports (including for Winter 2020/21)	FWM	Autumn 2021
FL3	Set out revised draft flood incident recording process for internal services and RMA.	FWM (for comment from RMA and internal)	Autumn 2021
FL4	Share draft Flood Asset Register for comment	FWM (for comment from RMA and internal)	Summer 2021
FL5	Share Catchment Management Plan Phase 1 mapping outcomes	FWM	Summer 2021
FL6	Share Catchment Management Plan Phase 2 outcomes	FWM	Autumn 2021
FL7	Share Flood and Water Management Project Story Map	FWM	Summer 2021
FL8	Review the internal Flood Action Log monthly with the Cabinet portfolio holder.	FWM	Ongoing
FL9	Confirm Environment Agency future funding programme.	FWM	Summer 2021
FL10	Environment Agency and Thames Water to develop projects to reduce the risk of flooding to residents.	Environment Agency and Thames Water	Ongoing
FL11	Draft service level Incident Flood Plans complete	All services in conjunction with FWM	Autumn 2021
FL12	Increase water level monitoring coverage.	FWM	Summer 2021
FL13	Delivery of Sustainable Drainage Systems programme on Council land	Highways and Housing Estates	Ongoing
FL14	Work with Green Spaces	Green Spaces	Ongoing
FL15	Planning officers to consider flood risk and climate change adaptation when making decisions.	Planning	Ongoing
FL16	Strategic infrastructure planning should consider the need for climate adaptation across the Borough.	Planning Policy	Ongoing
FL17	Continue to support local Flood Action Groups	FWM	Ongoing
FL18	Plan for and undertake 12-month communications campaign.	Comms	Summer 2021 to Summer 2022
FL19	Publish annual flood risk monitoring report.	FWM	Autumn 2021

Appendix A – Residents, Education and Environmental Services Policy Overview Committee – Tuesday 20th April 2021

Item 64 [Information Item on Flooding](#) [PDF 262 KB](#)

Minutes:

Victoria Boorman, Flood and Water Management Specialist introduced a report detailing the Council's roles and responsibilities as a Lead Local Flood Authority, its required actions during a major flood event, and lessons learned from recent flood events.

FLOODING

Committee name	Residents, Education and Environmental Services Policy Overview Committee
Officer reporting	Victoria Boorman
Papers with report	None
Ward	All

HEADLINES

The Committee have requested an update on a broad range of flooding incidents and actions taken.

This report covers the following subjects:

Flooding

- Roles and Responsibilities
- Actions during a major flood event
- Council learning from previous major flood events

RECOMMENDATIONS:

That the Committee notes the information presented in the report.

SUPPORTING INFORMATION

Flooding

Roles and Responsibilities

The Council as a Lead Local Flood Authority (LLFA) under the Flood and Water Management Act has the lead on 'local' flood risk from surface water, groundwater, and ordinary watercourses. The Environment Agency has the lead on main rivers, reservoir flooding and a strategic overview. Thames Water have responsibility for surface and foul water sewers, and Riparian Owners have responsibility for the stretch of river, stream, or ditch next to their land or property.

Although the organisations have the lead on these issues, they do not have the responsibility or the ability to solve all flooding issues, the primary responsibility remains with the landowner.

Gullies

Most common highway drainage feature is a gully. This consists of a concrete pot positioned under the road surface with an iron grate visible from the road. The water collects in the concrete pot and is then channelled via a pipe before connecting into the surface water sewer network or to a soak away.

Sometimes these pots and pipes become blocked with soil, dead leaves, and rubbish, preventing the free flow of water to the main surface water sewer. Hillingdon Council has over 32,000 road gullies across the borough. Gullies are normally cleaned by lifting the metal grating or cover and sucking all the dirt out using a gully sucker machine. High pressure jetting is required to remove some obstructions.

The Council has an annual cyclical gully cleansing programme whereby gullies in residential roads are cleansed once per year; A-roads twice per year; B & C-roads once per year. 400No 'critical gullies' have also been identified in locations that require more frequent cleansing and are cleansed four times per year.

Gullies on the Transport for London Road Network are the responsibility of Transport for London. There are also private roads which have gullies or other road drainage infrastructure which are the responsibility of those residents to maintain.

Surface water sewers

Highway run-off flows from a gully into a surface water sewer main. Often flooding can occur even where the gully is clear. This can be because there is a blockage within the surface water sewer, for example because of tree roots or silt build up, a blockage at the outfall or because of the river levels being high.

Surface water sewers are the responsibility of the utility companies, and in Hillingdon, this is Thames Water. The utility company will investigate and determine if there is an issue and take appropriate action to clear it. If a water main is overwhelmed simply because a great

deal of rain has fallen, a utility company is not required to undertake works to increase the size and capacity.

Flooding on roads

New roads include designed drainage systems intended to remove water efficiently from the surface of the highway to provide a safe passage for all vehicles and pedestrians. Older roads may have less sophisticated drainage, but all have features designed to take the water away from the road surface as quickly as possible. In some rural areas or on very minor roads, this may simply be a ditch leading to a watercourse.

When there is very heavy rainfall on the highway in a brief period, it can often be greater than the capacity of the drainage facilities designed to take it away, so it should be expected to see some water on a road after very heavy rain and water can remain for a while in low spots in the road even where the drainage system is working. Roads are designed to contain this water on the road by keeping it within the kerbs.

However, if the water remains after several hours, the gullies and the sewers may need to be investigated by the different organisations to determine if there is a problem or if the drainage system has sufficient capacity.

Actions during a major flood event

If the Environment Agency issues a Severe Flood Warning for a river in or upstream of Hillingdon, the Councils emergency Flood Plan would be activated which would initiate a coordinated Hillingdon response.

Some of the key service areas involved the planning, preparation response or recovery may include Highways, Green Spaces, Planning, Corporate Communications, Social Services, Corporate Property, Flood & Water Management, and Emergency Management & Response Service. Each service would follow internal service procedures alongside the Flood Plan to ensure a suitable response.

Key strategic actions include determining those most at risk, critical local infrastructure and evacuation and shelter requirements.

During a major flooding incident an Emergency Response Officer would attend the scene as the Local Authority Liaison Officer (LALO). The role of the LALO at the scene is to receive a situation report from the emergency services and to make a note of any requests made regarding providing an emergency rest shelter, and if other council departments also need to be contacted such as Housing, Highways and Social Care - to ascertain if there are any vulnerable adults who may have been affected.

The LALO is the Councils representative at the scene of the emergency event, and as such would need to liaise with the emergency services, provide regular updates, and send regular situation reports to the Borough Emergency Control Room. Any requests for Council departments to attend the scene would need to be escalated to Council Silver, who would contact the relevant departments. If an emergency rest shelter is required, then Council Silver would activate this and contact the rest centre managers and officers.

Council learning from previous major flood events

As a Lead Local Flood Authority, the Council also has a duty to investigate significant flooding events. This tries to identify the organisations involved, and what action they are taking to alleviate flooding. It is dependent on the cooperation of these other organisations. The writing of the investigation does not mean the Council is responsible for the flooding or to provide a solution. However, it is hoped that by making the process more transparent, other organisations and stakeholders can be more easily held to account for their actions.

Investigation

Reports of flooding to the council are collated and recorded, and significant flooding (where properties or business have been flooded internally) trigger a Section 19 investigation, which will be published.

Any investigation takes time to prepare, but particularly in Hillingdon as often the places affected are so disparate across the borough. Each significant report is investigated by the Flood and Water Officer, further information collected, reviewed, and referred to other organisations such as Thames Water where necessary for feedback. Often there are several organisations involved, with responsibility for various parts of the drainage system. For example, where gullies on the road, which the council are responsible for, drain to a Thames Water Sewer, which in turn flows into a main river for which the Environment Agency has responsibility.

The Council understands the concerns of residents who wish to see action taken quickly, but it is important that the Council prioritises resources and funding to those affected most. The Council must also ensure that works do not make the situation worse for others. The Council has published flood investigation reports on the Council website on following significant flood events in December 2013, July 2014, and June 2016. These reports and the actions taken can be found on the Council webpages. [Flooding - Hillingdon Council](#). The flooding team have finalised a draft of October 2019 ready to submit for cabinet approval to publish. It is working on a further report combining the events of October 2020 and Jan 2021.

Actions

In the long-term finalised opportunities to alleviate issues on reported flooding sites, will be incorporated into an update of Hillingdon's Local Flood Risk Management Strategy to be published later in 2021 as sites where further investigation will be required to seek solutions for. These will be prioritised in accordance with the consequences of the flood and the numbers affected against those already on the Action Plan being taken forward.

Where possible, the most affected sites will be the subject of applications for external funding by the relevant service area. This will allow the Council to do more detailed studies of the area and assess options for solutions to determine if there is a future scheme to alleviate flooding. This will often need the cooperation of other organisations with responsible for various parts of the drainage system.

The Council have an extensive list of projects that the Council flooding team are leading on and working with the Environment Agency to identify opportunities for ways to reduce flood risk to residents. The following is a list of some of the key projects that the flooding team are working on with the Environment Agency and other organisations such as Thames Water.

Project	Issues	Actions
Bessingby Park (LBH land)	1.Thames Water drainage/ sewer overflows. 2.Surface water ponding. 3.Risk of properties flooding. x4 properties flooded in 2021. Park flooded x5 times in January 2021.	Flooding team are working with Thames Water to ensure they investigate the issues properly and feedback actions taken to the Council and residents. A clean up has taken place April 2021.
Riverside Caravan Park, West Drayton (Private land)	Flooding from adjacent River Colne – overtopping the bank. Flooded 20 plus residents in October 2020 and they had to be evacuated. They were surrounded by water in Jan 2021.	Currently temporary Sandbag wall in place to protect residents. The Flooding team are working with the EA (Environment Agency) to ensure they put in place a longer-term solution. The EA are working to understand the complex interactions in this area better as well as maintain the river.
Donkey Lane, Bigley Ditch, West Drayton (Private land)	Flooding to 5-6 properties and water surrounding others in 2016, 2020 and 2021.	River Maintenance works along the River Colne identified and being undertaken.
Park Woods / Pinn Meadows (LBH land)	Flooded in 2016 in two key areas – in Brook Drive and Park and Broadwood Avenue.	Quick wins phase 1 completed by the Council in Feb 2021 to create more space for water along the River Pinn for water and enhance the park. The flooding team are working with residents and the Environment Agency to identify longer term options.
Cannon-Brook, Pinn	Risk of properties flooding. In 2016 x6 properties flooded at Watlington close. Previously x100 flooded in 1977.	Property Level protection works at Wallington Close as well as upstream Wetland works designed near Bury Street to slow the flow of water to areas at risk.
Joel Street, River Pinn	Eastcote Tennis Club and several residents in the surrounding area were affected by flooding in 2016 and 2019.	Works at Haydon Drive identified and now designed to slow the flow water entering the Joel Street ditch. Some funding secured though the Better Neighbourhood fund match funding to be sought from the EA by the flooding team.
Copthall, River Pinn	Risk of properties flooding. x116 potentially at risk from flooding	Designs developed to hold back water on area that HS2 have identified as
Ruislip Manor, River Crane	Risk of properties flooding. In 2016 x13 businesses affected. Tube station closed multiple times since then.	TFL (Transport for London) committed funding to look at Options but with Covid the funding has not yet been provided. A gauge to provide warning of the issues developing is to be installed.

Victoria Road, River Crane	Risk of properties flooding. In 2016 Victoria Road closed. In 2021 at Deane Park flooded gardens – existing defence not working. Potential for hundreds of residents and Stonefield Industrial Park to be affected.	Consultants developing options that could be considered to alleviate flooding.
Eastcote Town Centre	In 2016 and 2020 Businesses along Eastcote High Street flooded.	An extension to the Raingardens identified. Parking Changes identified needed. Consultation on these highway changes imminent.
Elephant Park (LBH land)	Risk of flooding to properties. In 2014 flooding of residents on Regent Avenue.	Design developed, Tender for contractors being developed, works to start this summer to reintroduce a river through the park.
Charville	Risk of flooding to residential properties. 0 properties flooded internally but over 40 properties experienced disruption to their electrical supplies.	Options identified but private landowner consent needed to be delivered. Ongoing discussions being held.
A40, River Crane	Episodes of flooding leading to sections of the A40 being reduced to x1 lane / reduced flow of traffic.	Consultants being commissioned to review options.
River Crane - Cranford Park	No previous reports of flooding, but large numbers of properties modelled to be at risk.	Detailed design of Wetland Options within Cranford Park being developed as outlines on Cranford Park Masterplan for Heritage Lottery Fund project.