

# LOCAL FLOOD RISK MANAGEMENT STRATEGY AND SURFACE WATER MANAGEMENT PLAN CONSULTATION REPORT

**Project no. 4021383**

Prepared for:

London Borough of Havering

Date: April 2025



## Table of contents

<b>1.</b>	<b>Introduction.....</b>	<b>3</b>
<b>2.</b>	<b>Consultation Methodology.....</b>	<b>5</b>
2.1	Working with stakeholders.....	5
2.2	Online Consultation.....	5
2.3	Internal Councillor briefing.....	6
<b>3.</b>	<b>Consultation Responses .....</b>	<b>7</b>
3.1	Online consultation responses .....	7
3.2	Awareness of flood risk.....	7
3.3	Response to flooding.....	9
3.4	Barriers to managing flooding.....	12
3.5	Objectives.....	13
3.6	Strategy .....	18
3.7	Action Plan.....	20
<b>4.</b>	<b>Consultation Summary – You Said, We Did.....</b>	<b>22</b>
4.1	Flood risk information .....	22
4.2	Flood risk measures.....	26
4.3	Assets.....	27
4.4	Impact of development.....	28
<b>5.</b>	<b>Summary of changes made as a result of the consultation.....</b>	<b>28</b>
<b>6.</b>	<b>Next Steps.....</b>	<b>29</b>

### LIST OF FIGURES

Figure 1-1: Activities completed to produce the LFRMS and SWMP .....	3
Figure 3-1: Types of stakeholder involvement in the online consultation. ....	7
Figure 3-2: Responses to 'are you aware of flood risks in the London Borough of Havering?' .....	8
Figure 3-3: Responses to 'have you been affected by flooding, either directly or indirectly?' .....	8
Figure 3-4: Responses to 'on a scale of 1 to 5, how concerned are you about the potential for flooding in our community?' .....	9
Figure 3-5: Responses to 'If there was a risk of immediate flooding, what would you do to access an emergency response?' .....	10
Figure 3-6: Responses 'if there was a risk of immediate flooding, what would you do to access an emergency response?' .....	11
Figure 3-7: Responses to 'what steps would you consider taking to reduce the wider risk of flooding'. ....	12
Figure 3-8: Responses to 'What are the main barriers you have to be able to take steps to manage flood risk?' .....	13
Figure 3-9: Responses to 'Thinking about these objectives, do you think there is a need for more public education on flood risks and preparedness?' .....	14
Figure 3-10: Response to 'Thinking about these objectives, do you understand the roles that different organisations (such as the Council, the Environment Agency and Thames Water) have to manage different sources of flooding and drainage issues in the Borough?' .....	15
Figure 3-11: Responses to 'Before responding to this survey today, did you know about the role the Council has in managing flooding?' .....	16
Figure 3-12: Responses to 'Are you aware of flood risk management plans from other organisations, such as the Environment Agency and/or Thames Water?' .....	16

Figure 3-13: Responses to 'Are you aware of any local initiatives or organisations working to address flood risk?' .....17

Figure 3-14: Responses to 'Thinking about these objectives, do you believe the current drainage infrastructure in our area is adequate?' .....17

Figure 3-15: Responses to 'Would you support the use of sustainable drainage solutions (e.g. permeable paving, green infrastructure) in the Borough to reduce flood risk?' .....18

Figure 3-16: Response to 'Are you willing to adopt sustainable drainage on your property or premises to contribute to flood risk reduction?' .....18

Figure 3-17: Responses to 'Do you understand what the Strategy is about and why it has been done?' .....19

Figure 3-18: Responses to 'Considering the Action Plan, how do you feel about the ambition of the actions?' .....20

Figure 4-1: Historic Flooding events reported during consultation (not to scale) .....24

**List of TABLES**

Table 4-1: Main themes and issues raised at consultation .....22

Table 4-2: Suggestions or evidence improvements raised at consultation .....23

**Details of document preparation and issue:**

Version no.	Prepared	Checked	Reviewed	Approved	Issue date	Issue status
P1	Katie Allsopp & Patri Cuervo	Ruth Burnham	Hannah Burgess	Hannah Burgess	05/03/2025	Draft for comment
P2	Katie Allsopp	Ruth Burnham	Patri Cuervo	Hannah Burgess	08/04/2025	Final for publication

Project no. 4021383

Client's reference no.

File name: 4021383-BUK-ZZ-00-RP-FR-00014

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# 1. Introduction

Binnies were commissioned by the London Borough of Havering (LBH) Lead Local Flood Authority (LLFA) team to support a review and update of the existing Local Flood Risk Management Strategy (LFRMS), Surface Water Management Plan (SWMP), supporting Action Plan, and the Council’s implementation of the LLFA duties.

The LFRMS is a statutory document that sets out the Borough’s local sources of flood risk and the Council’s priorities and actions to address them. The Strategy considers other policies, strategies, and actions for LBH and other Risk Management Authorities (RMAs) such as the Environment Agency, Water Companies and Highways Authorities.

The SWMP is a non-statutory document prepared to understand surface water flood risk and its interaction with other sources of flooding. It is developed with local partners and includes an action plan with clear actions to manage flood risk locally. The SWMP provides robust information regarding surface water in Havering and supports the review of the LFRMS as an evidence base.

Both the LFRMS and the SWMP defined a set of actions and measures, which were combined into a detailed Action Plan. The Action Plan is split into two sections showing Boroughwide and Critical Drainage Areas (CDA) specific measures. The LFRMS, Action Plan and SWMP can be found on LBH’s website. The figure below shows the process undertaken to update the LFRMS, SWMP and Action Plan.

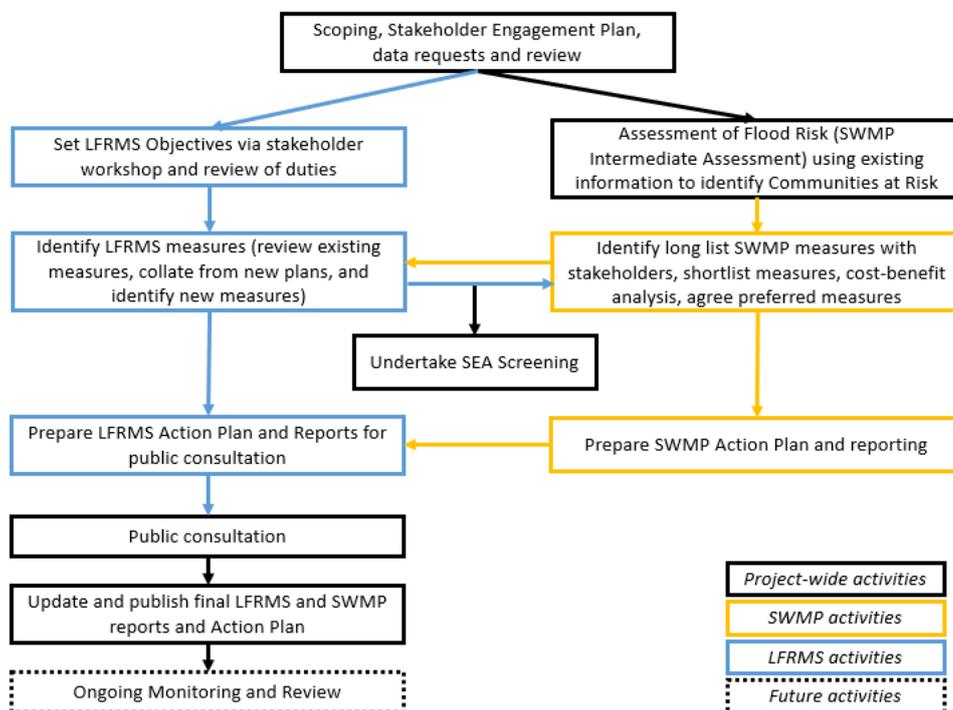


Figure 1-1: Activities completed to produce the LFRMS and SWMP



Public consultation on the LFRMS and Action plan ran from the 16th October 2024 until the 29th November 2024. The consultation requested views and comments from the public, RMAs, Councillors and other Stakeholders regarding flood risk priorities and measures. It also provided an opportunity for the Council to engage with residents and

businesses and raise awareness of flood risk, responsibilities, funding and competing priorities.

This report provides information on the consultation methodology, responses, changes made and next steps.

LBH would like to share their appreciation for the members of the public and stakeholders who took the time to share their feedback on the documents. Their comments have helped to produce an informed and improved final LFRMS and Action Plan.



## 2. Consultation Methodology

The consultation methodology included:



Working with Stakeholders



Internal Councillor briefing



Online Consultation

### 2.1 Working with stakeholders

The review of the LFRMS and the SWMP was undertaken at the same time, so a Stakeholder Engagement Plan was developed to identify who would be affected by the outcomes of both documents. This enabled stakeholders to be engaged throughout the process. The Stakeholder Engagement Plan covers the individual stakeholder details, their interests in the project, what they would want from the project, what is expected from them and methods of communication.

The stakeholders involved in the review were:

- Thames Water
- Anglian Water
- Environment Agency
- LBH Lead Local Flood Authority
- LBH Planning
- LBH Emergency Planning
- LBH Highways
- LBH Parks and Environment
- LBH Lead Members

Two workshops were held with the key stakeholders to discuss how the council's priorities for managing flood risk aligned with the stakeholders' priorities. These discussions informed the development of the LFRMS Aims and Objectives. Also, new boroughwide measures (actions) were developed to identify how the council would meet the new LFRMS aims and objectives. Boroughwide measures will have an impact across the whole Borough. The new measures were included in the Action Plan, alongside measures developed as part of the SWMP update.

During the consultation, stakeholders were contacted to request their input to the online questionnaire.

### 2.2 Online Consultation

The online consultation for the draft LFRMS and Action Plan was published on the LBH website. The consultation page explained what the Strategy and Action Plan are, why the council was seeking responses to the consultation and links to the draft documents and where to locate flooding advice. The updated SWMP was also available online for those wishing to have more detailed information on local flood risk.

The consultation was shared through various methods to ensure it reached as many interested parties as possible. It was shared via email to internal and external stakeholders and councillors. The consultation was also publicised in the 'Living in Havering' newsletter on the 26<sup>th</sup> of October 2024. A summary piece was included in a later issue of the 'Living in Havering' newsletter on the 22<sup>nd</sup> of November 2024, towards the end of the consultation period. The consultation was

also promoted on social media platforms during November to encourage residents, businesses and other stakeholders to provide their views before the end of consultation.

### 2.3 Internal Councillor briefing

A councillor briefing was produced to support the Council's internal approval of the LFRMS and Action Plan for consultation. The briefing covered the following topics:

- What are the LFRMS and SWMP
- Why are they needed and why consultation is necessary
- Methodology of the review
- Development of the Action Plan
- Strategic Environmental Assessment
- Information on the consultation documents and process

The briefing was successful, not only by supporting LBH officers and councillors to agree and progress the public consultation, but also to increase awareness within the Council of local flood risk issues.

### 3. Consultation Responses

#### 3.1 Online consultation responses

The online consultation received 48 responses. Of those, 44 (92%) responses were from the public and four (8%) were from other stakeholders, including the London Riverside Business Improvement District (BID) and the Roding, Beam and Ingrebourne (RBI) Catchment Partnership. The Environment Agency did not complete the online questionnaire but shared their response via email to the LLFA. Thames Water did not submit a formal response but participated actively in the stakeholder workshops during the review of the LFRMS and Action Plan.

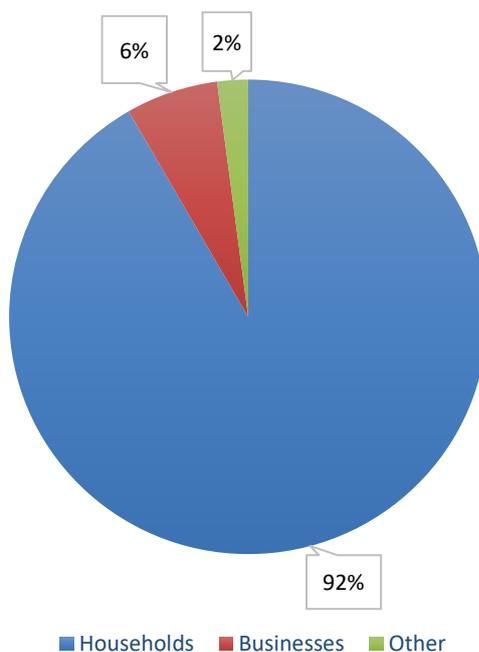


Figure 3-1: Types of stakeholder involvement in the online consultation.

The online questionnaire included questions covering different topics from awareness of local flood risk and emergency response to barriers to managing flooding. The questionnaire also sought views on the Council's objectives for flood risk management, the LFRMS and the Action Plan. Some questions were open and others were multiple-choice. Consultees were also given opportunities throughout the questionnaire to provide other comments. Although 48 respondents answered the questionnaire, some did not respond to all the questions within the questionnaire.

#### 3.2 Awareness of flood risk

Initial questions asked about the participants awareness, knowledge, and experience of flooding in LBH:

1. Are you aware of flood risks in the London Borough of Havering?
2. Have you been affected by flooding, either directly or indirectly?
3. On a scale of 1 to 5, how concerned are you about the potential for flooding in our community? (1 = not concerned, 5 = very concerned)

### Are you aware of flood risks in the London Borough of Havering?

88% of participants responded that they were aware and 12% of participants said that they were not aware of flooding in LBH, as shown in Figure 3-2. The additional comments supplied for this question show that most participants were aware of flooding either because they or their neighbours had experienced flooding or because of their proximity to a watercourse. It is expected that those who were flooded in the past are more likely to respond to this consultation as they would be more aware of the risks and consequences.

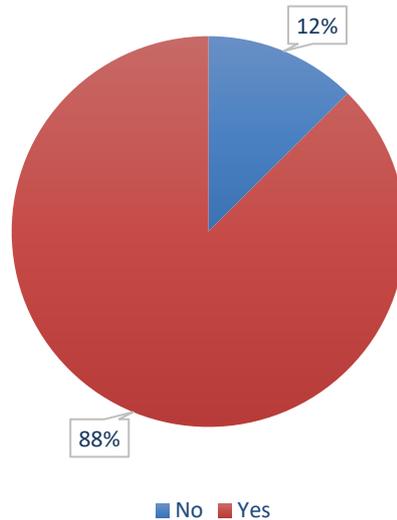


Figure 3-2: Responses to 'are you aware of flood risks in the London Borough of Havering?'

### Have you been affected by flooding, either directly or indirectly?

30% of participants were aware of flooding occurring in the borough, 28% of participants were aware of flooding in their community and 21% of participants had experienced flooding to their property, as shown in Figure 3-3. The additional comments provided details of the participants' experience of flooding, mainly to their own properties.

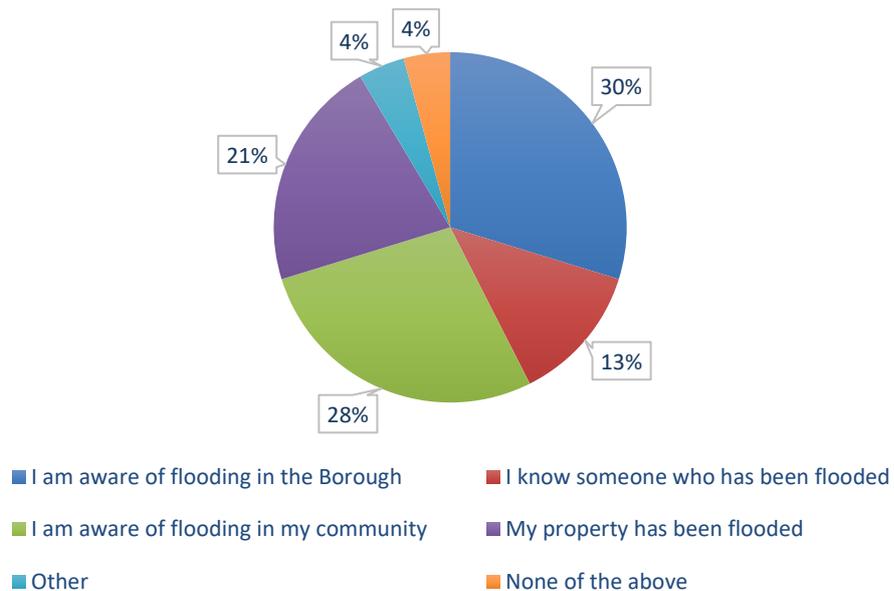


Figure 3-3: Responses to 'have you been affected by flooding, either directly or indirectly?'

**On a scale of 1 to 5, how concerned are you about the potential for flooding in our community? (1 = not concerned, 5 = very concerned)**

The majority of the participants were very concerned about flooding in their community as shown in Figure 3-4. 69% of the participants rated their concern as 5 (highest degree of concern) and 16% of participants rated it as 4. Only 15% of participants rated it as 1-3 (lower concern). The additional comments for this question referred to concerns regarding flood management, drainage maintenance, climate change, the location of their properties and impacts of housing development.

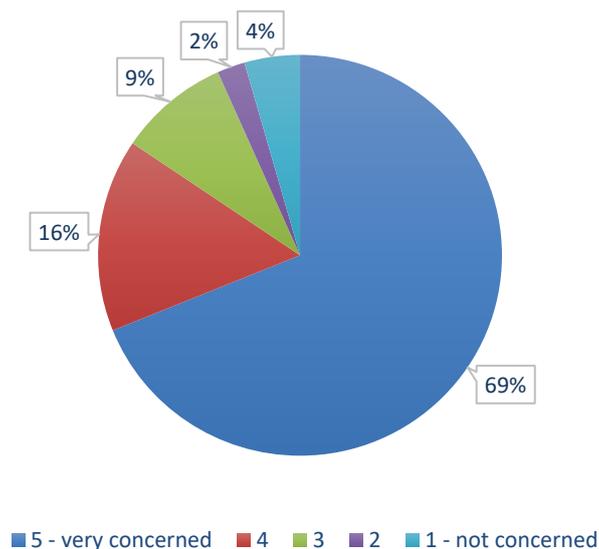


Figure 3-4: Responses to 'on a scale of 1 to 5, how concerned are you about the potential for flooding in our community?'

### 3.3 Response to flooding

Some of the questions asked participants about who to contact during a flooding and how to manage personal and community's risk:

1. If there was a risk of immediate flooding, what would you do to access an emergency response?
2. What steps have you already taken to manage your personal risk of flooding?
3. What steps would you consider taking to reduce the wider risk of flooding in the Borough?

**If there was a risk of immediate flooding, what would you do to access an emergency response?**

Figure 3-5 shows most participants (35%) would contact three emergency responders: the Environment Agency, the Council and the emergency services. Out of the 40% of participants who selected a single contact, 23% would contact the emergency services, 11% the Environment Agency and the Council. 17% did not know who to contact during an emergency.

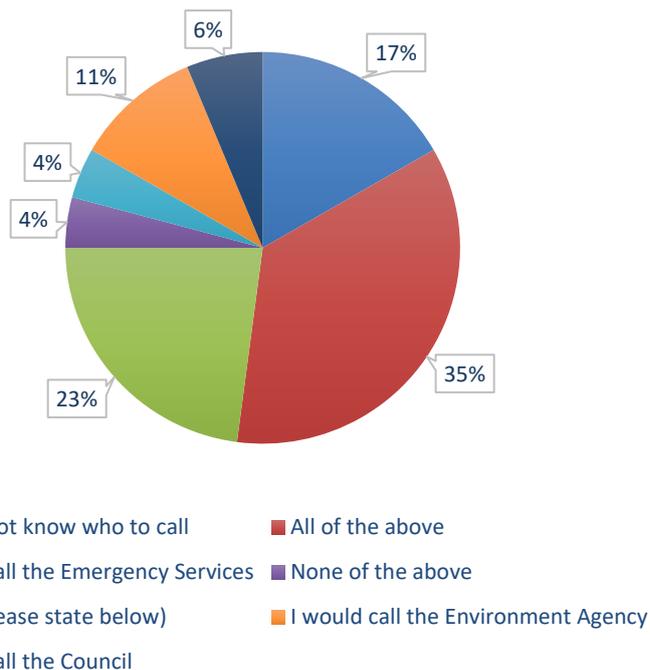


Figure 3-5: Responses to *If there was a risk of immediate flooding, what would you do to access an emergency response?*

### What steps have you already taken to manage your personal risk of flooding?

Figure 3-6 shows the number of participants who took various steps to manage their personal flood risk. The most common step was looking at their own property drainage (21 participants). Other frequent actions included signing up for flood warnings, checking building/contents insurance for flood cover, installing a water butt and adding more plants. Other measures described in the additional comments included:

- Armoured electric cables
- Removing impermeable surfaces
- Emergency drain rods
- Flood barriers
- Using private companies to clear drains
- Soakaways

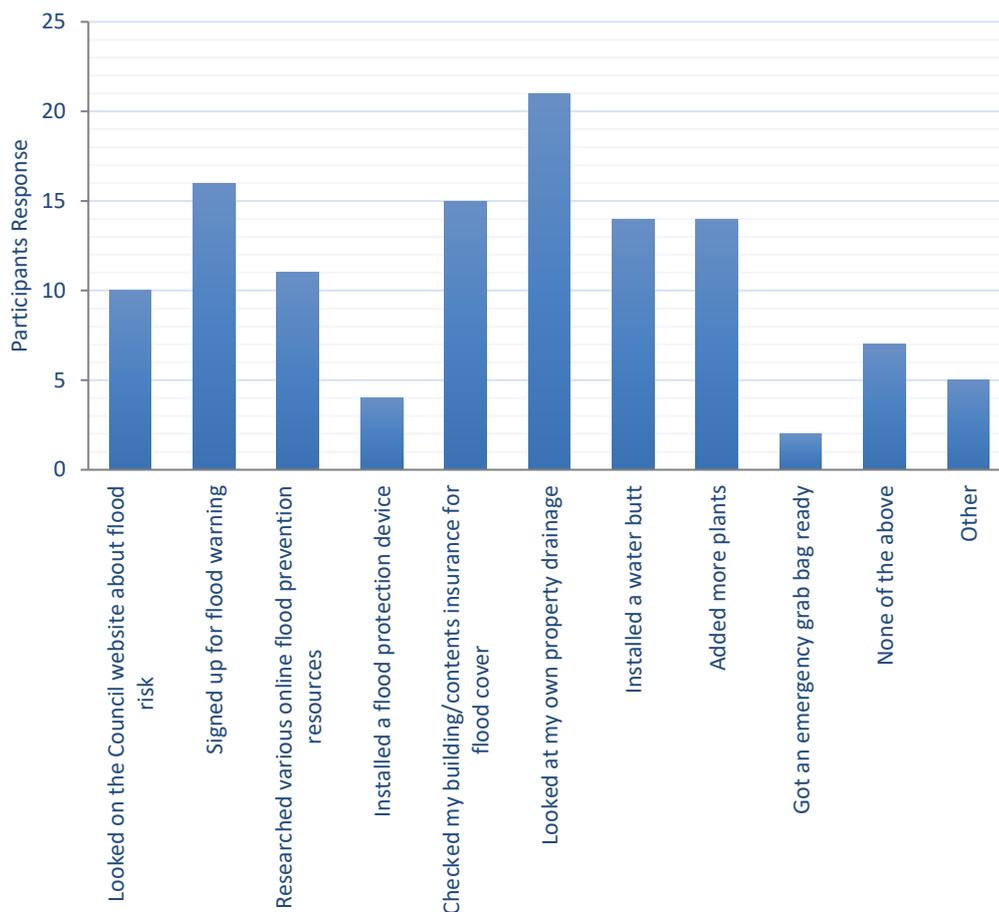


Figure 3-6: Responses 'if there was a risk of immediate flooding, what would you do to access an emergency response?'

**What steps would you consider taking to reduce the wider risk of flooding in the Borough?**

Figure 3-7 shows the suggested steps that the participants would consider taking to reduce the wider risk of flooding in the borough. The steps that most participants would consider were sharing information with a neighbour or friend and installing a water butt or planter. The option least chosen was becoming a flood warden for the local area, with only 5 participants selecting this response. 12 responders would not consider any of the proposed measures and 7 responders selected that they would take other steps to reduce flooding in the borough. The other steps provided in the additional comments:

- Act as flood warden for a business community
- Planting in greenspaces
- Share information with Business Improvement District (BID) members about what they can do and what is being done by the council and other agencies
- Redeveloping gardens to increase drainage

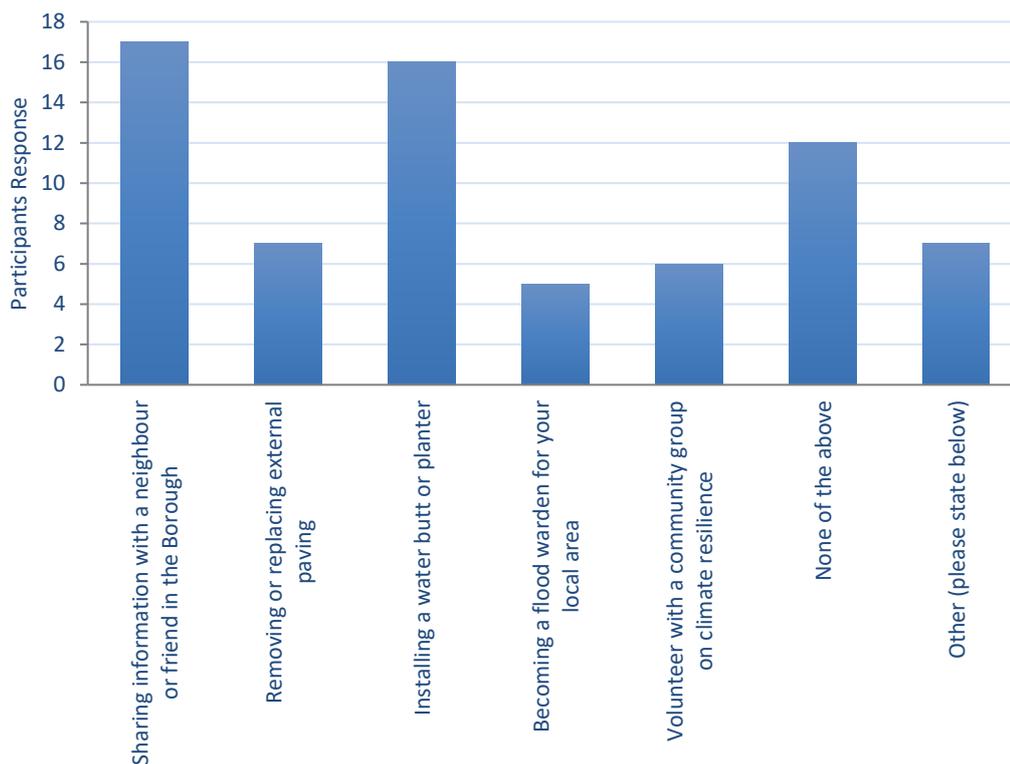


Figure 3-7: Responses to 'what steps would you consider taking to reduce the wider risk of flooding'.

### 3.4 Barriers to managing flooding

#### What are the main barriers you face to be able to take steps to manage flooding?

In this multiple-choice question, the main barriers selected by participants were 'I don't have the information I need' (14 participants) and 'I need more technical assistance' (12 participants). The barrier least chosen was 'I don't have enough time' (5 participants). Eight of the responders considered that there were no barriers to take steps to manage flood risk. There were many other barriers raised including:

- Funding from the Council
- How information is shared within LBH
- Government action at local level
- Age of the participant
- Physical ability

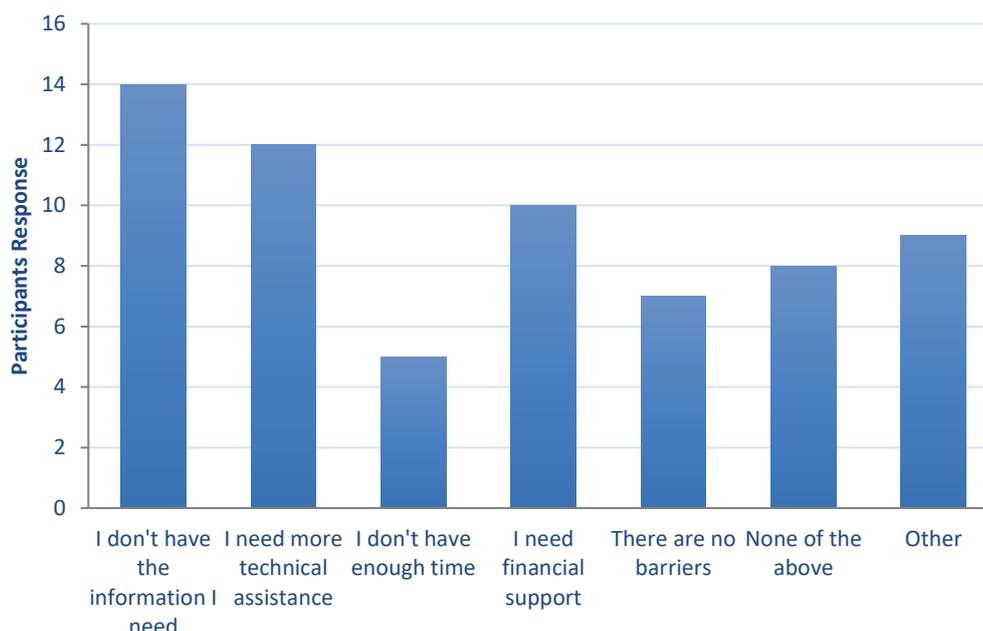


Figure 3-8: Responses to 'What are the main barriers you have to be able to take steps to manage flood risk?'

### 3.5 Objectives

Participants were provided with a list of the proposed LFRMS Objectives. The following questions asked participants to consider the Strategy's objectives in relation to issues such as flood risk information, resources, community engagement, the Council role in flood risk, etc:

1. Thinking about these objectives, do you think there is a need for more public education on flood risks and preparedness?
2. What kind of flood-related information or resources would you find most helpful?
3. How can we best engage with residents and the wider community to raise awareness and encourage flood preparedness?
4. Thinking about these objectives, do you understand the roles that different organisations (such as the Council, the Environment Agency and Thames Water) have to manage different sources of flooding and drainage issues in the Borough?
5. Before responding to this survey today, did you know about the role the Council has in managing flooding?
6. Are you aware of the flood risk management plans from other organisations, such as the Environment Agency and/or Thames Water?
7. Are you aware of any local initiatives or organisations working to address flood risk?
8. Thinking about these objectives, do you believe the current drainage infrastructure in our area is adequate?
9. Would you support the use of sustainable drainage solutions (e.g. permeable paving, green infrastructure) in the Borough to reduce flood risk?
10. Are you willing to adopt sustainable drainage on your property or premises to contribute to flood risk reduction?

**Thinking about these objectives, do you think there is a need for more public education on flood risks and preparedness?**

Figure 3-9 shows that the vast majority (81%) of participants thought that there was a need for more public education on flood risks and preparedness. The additional comments stated that

education on flood risk and preparedness should be focused on those residents and businesses in vulnerable areas.

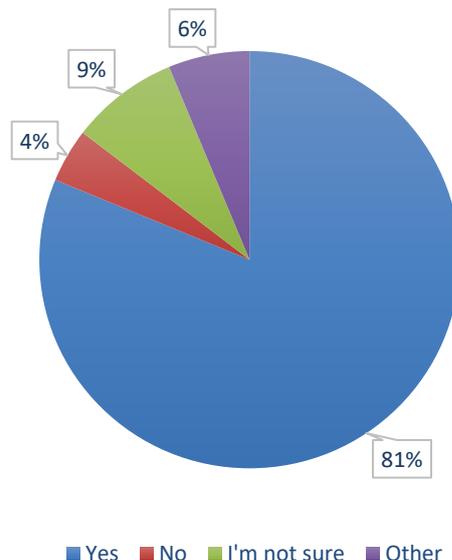


Figure 3-9: Responses to 'Thinking about these objectives, do you think there is a need for more public education on flood risks and preparedness?'

#### What kind of flood-related information or resources would you find the most helpful?

The participants suggested a range of methods of how flood information should be shared to both residents and businesses in LBH. The methods included printed leaflets, social media posts, emails and text messages. The responders also suggested what information they would find beneficial. This covered:

- The impacts and causes of flooding
- Guidance on how to reduce the impacts of flooding to homes and businesses
- Information of the maintenance being carried out in LBH
- Who to contact in an emergency
- Identified areas which are at high risk of flooding

#### How can we best engage with residents and the wider community to raise awareness and encourage flood preparedness?

Participants suggested a variety of methods to engage with residents, including:

- Leaflets through doors
- Online sources including social media posts and information on LBH webpages
- Newspapers
- Signage in areas at risk
- Flood wardens
- Working in partnership with London Riverside BID and Roding, Beam and Ingrebourne catchment
- Talking to residents and community meetings
- Notice boards in community areas

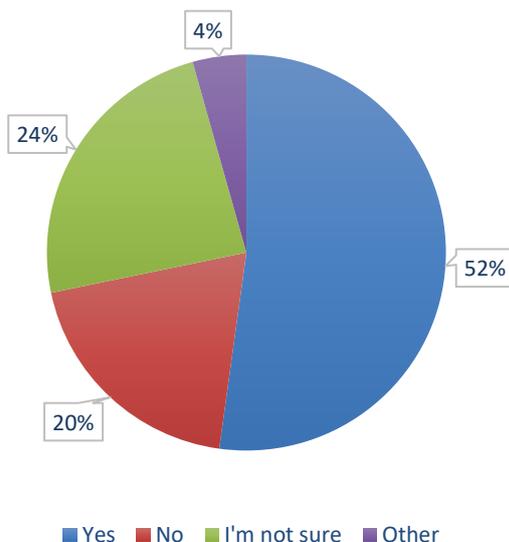
There were also topics that the participants believed should be shared to raise awareness and encourage flood preparedness, including:

- Advice on how to prepare your home
- Importance on reporting blocked drains
- Information on what to do in an emergency

- Directions to where to find information
- Share importance on keeping streets clean
- Inform who is at risk of flooding

**Thinking about these objectives, do you understand the roles that different organisations (such as the Council, the Environment Agency, and Thames Water) have to manage different sources of flooding and drainage issues in the Borough?**

About half of the participants understood the roles of different organisations as shown in Figure 3-10. 20% of the participants did not understand the roles and 24% were not sure. Additional comments asked for more clarity and information about which organisation is responsible for each flooding issue.



*Figure 3-10: Response to 'Thinking about these objectives, do you understand the roles that different organisations (such as the Council, the Environment Agency and Thames Water) have to manage different sources of flooding and drainage issues in the Borough?'*

**Before responding to this survey today, did you know about the role the Council has in managing flooding?**

There was an equal split between participants who did and did not know about the role that the Council has, as shown in Figure 3-11 and 12% were not sure. The additional comments provided highlighted that participants understood the general role of the Council but did not know the details.

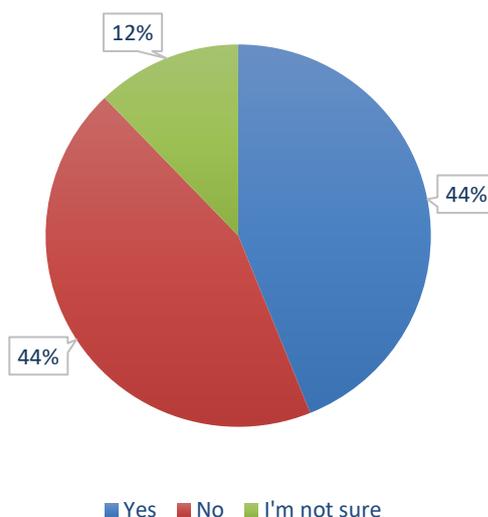


Figure 3-11: Responses to 'Before responding to this survey today, did you know about the role the Council has in managing flooding?'

**Are you aware of the flood risk management plans from other organisations, such as the Environment Agency and/or Thames Water?**

64% of the participants were not aware of flood risk management plans from the Environment Agency and Thames Water, as shown in Figure 3-12. Only 23% of the participants were aware of the flood risk management plans.

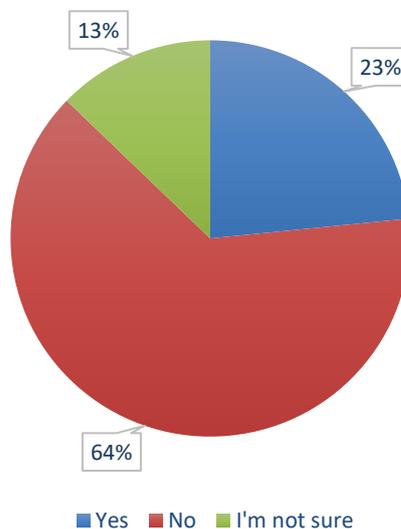


Figure 3-12: Responses to 'Are you aware of flood risk management plans from other organisations, such as the Environment Agency and/or Thames Water?'

**Are you aware of any local initiatives or organisations working to address flood risk?**

As shown in Figure 3-13, most of the participants (68%) were not aware of any local initiatives or organisations working to address flood risk. 17% of participants were aware. The additional comments named organisations that were working to address flood risk such as Thames 21 and Thames Chase Trust. It was also highlighted that the Council should communicate this information.

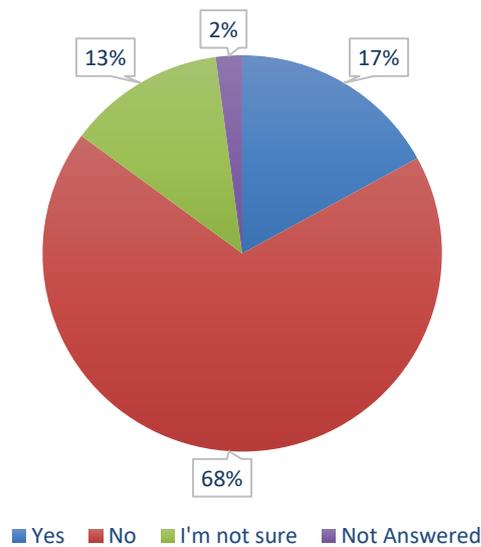


Figure 3-13: Responses to 'Are you aware of any local initiatives or organisations working to address flood risk?'

**Thinking about these objectives, do you believe the current drainage infrastructure in our area is adequate?**

Figure 3-14 shows that most of the participants (83%) felt that the current drainage infrastructure was not adequate. Only 6% felt that the drainage infrastructure was adequate. The additional comments identified significant drainage issues, mainly in relation with maintenance of gullies to prevent blockages.

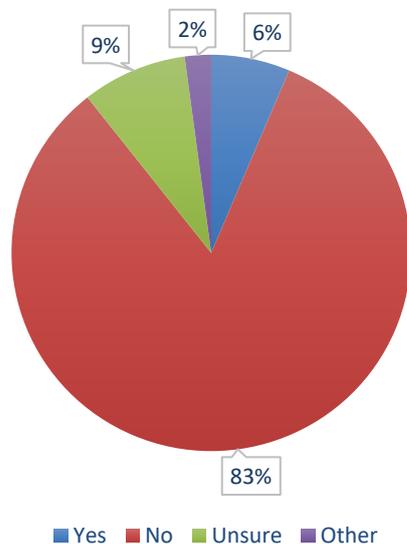


Figure 3-14: Responses to 'Thinking about these objectives, do you believe the current drainage infrastructure in our area is adequate?'

**Would you support the use of sustainable drainage solutions (e.g. permeable paving, green infrastructure) in the Borough to reduce flood risk?**

The use of sustainable drainage solutions was widely supported by the participants, with 83% agreeing (see Figure 3-15 below). Only 2% (1 participant) did not support its use and 9% of were not sure. The two main comments were that new developments should have sustainable drainage implemented as standard and that any drainage should be properly maintained.

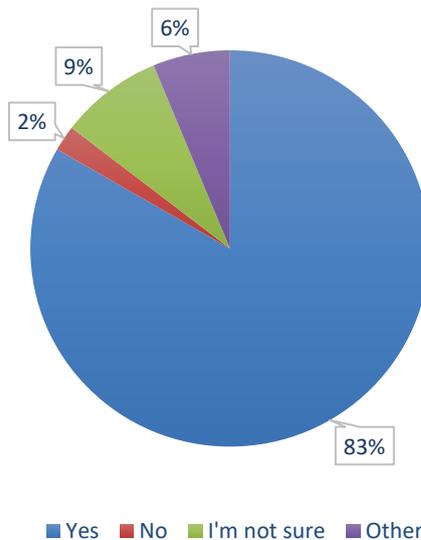


Figure 3-15: Responses to 'Would you support the use of sustainable drainage solutions (e.g. permeable paving, green infrastructure) in the Borough to reduce flood risk?'

**Are you willing to adopt sustainable drainage on your property or premises to contribute to flood risk reduction?**

Over half of the participants would be willing to adopt sustainable drainage on their property, as seen in Figure 3-16. 10% were not willing, 19% unsure, and 15% chose 'other'. Most participants who elected 'I'm not sure' would have liked to have more information before deciding if they would adopt sustainable drainage to their properties. Additional comments voiced concerns about the costs associated.

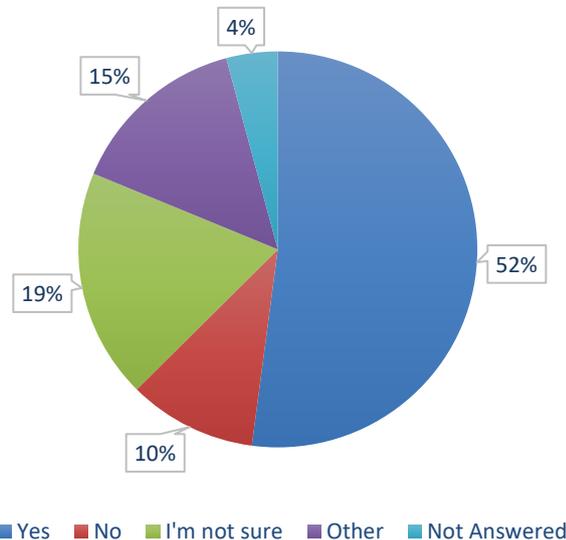


Figure 3-16: Response to 'Are you willing to adopt sustainable drainage on your property or premises to contribute to flood risk reduction?'

**3.6 Strategy**

The Strategy questions were about the participants understanding, views and suggestions about the LFRMS:

1. Do you understand what the Strategy is about and why it has been done?

2. Now considering the Strategy as a whole, what are your thoughts on the proposed Local Flood Risk Management Strategy? Are there specific aspects you support or have concerns about?
3. What additional evidence would you like to see developed or published?
4. Do you have any suggestions or recommendations for improving the Strategy?

**Do you understand what the Strategy is about and why it has been done?**

Just over half (53%) of the participants understood, 15% did not understand and 21% were not sure if they understood, as shown in Figure 3-17. The additional comments raised concerns about how the council was going to action the Strategy and about future development in the borough.

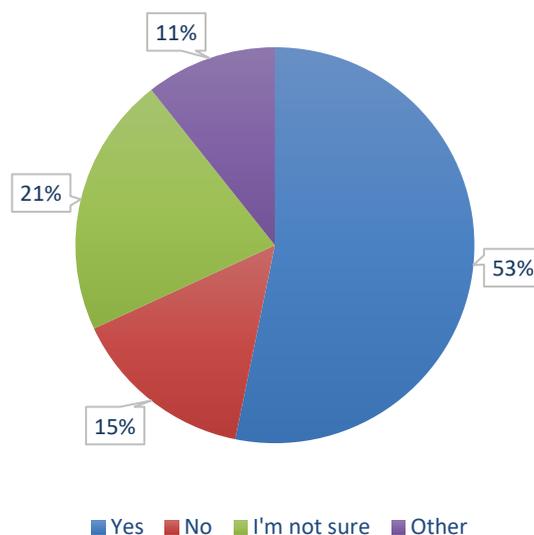


Figure 3-17: Responses to 'Do you understand what the Strategy is about and why it has been done?'

**Now considering the Strategy as a whole, what are your thoughts on the proposed Local Flood Risk Management Strategy? Are there specific aspects you support or have concerns about?**

The main themes raised by the 48 participants in this question were:

**Support**

- Understanding of why the Strategy is needed in the borough

**Concerns**

- How implementing actions will be funded
- Practicality of the actions
- Impacts to businesses
- How new developments will impact flood risk
- Limited partnership working
- Maintenance of gullies

**What additional evidence would you like to see developed or published?**

There was a variety of suggestions for additional evidence that the participants wanted in the Strategy, including:

- Statistics on flooding
- Information on gully maintenance
- How the Strategy aligns with wider London

- Areas of flood risk
- What actions will be implemented and who is responsible
- What is already being done within Havering
- Nature based solutions
- Yearly updates published about progress

The additional evidence suggested is either already included in the SWMP, the LFRMS and the Action Plan, or will be developed as part of delivery of the Action Plan – please refer to section 4 below.

**Do you have any suggestions or recommendations for improving the Strategy?**

There were various suggestions and recommendations for improving the Strategy. The most common themes included:

- To be made more user friendly and simplified
- Include nature-based solutions
- To be organised into local areas
- To include collaborative working

**3.7 Action Plan**

The Action Plan consultation questions asked for the participants’ views on the ambitions of the actions and what they thought could be included in the Action Plan. The questions were:

1. Considering the Action Plan, how do you feel about the ambition of the actions?
2. Are there any actions you feel are missing from the Action Plan?

**Considering the Action Plan, how do you feel about the ambition of the actions?**

As shown in Figure 3-18, most participants (45%) felt that the actions were not ambitious enough. 23% were not sure, 21% were happy with the ambition of the actions and 11% felt they were too ambitious. There was various views and concerns shared in the additional comments, including:

- The need for more focus on flood defences
- Concerns about how these actions would be funded
- More focus on nature-based solutions

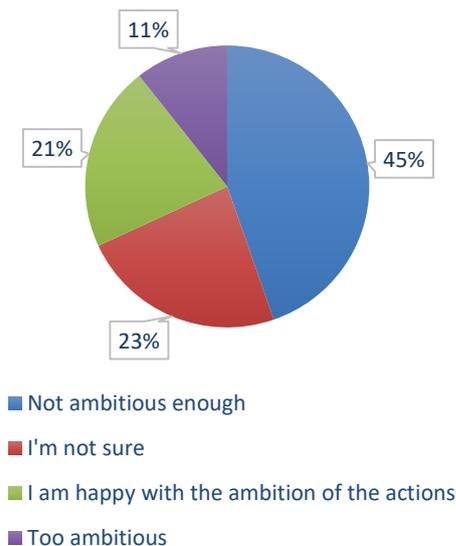


Figure 3-18: Responses to 'Considering the Action Plan, how do you feel about the ambition of the actions?'

**Are there any actions you feel are missing from the Action Plan?**

The actions which the participants thought were missing from the action plan included:

- Nature-based solutions
- Collaborative working
- Scheme to help homeowners implement measures on their properties
- Community involvement

## 4. Consultation Summary – You Said, We Did

This section focuses on the main issues raised by the respondents and how they have been addressed in the Strategy and Action Plan.

The issues raised can be grouped in the themes shown in the table below.

*Table 4-1: Main themes and issues raised at consultation*

Themes	Issues
Flood risk information	<ul style="list-style-type: none"> <li>• Practical information</li> <li>• Flooding events</li> <li>• Stakeholder</li> <li>• Water quality</li> <li>• CDA names</li> <li>• Business Community</li> <li>• Links with wider London priorities</li> </ul>
Flood risk measures	<ul style="list-style-type: none"> <li>• Measures at property level</li> <li>• Green infrastructure</li> <li>• Prioritising measures</li> <li>• Funding</li> </ul>
Assets	<ul style="list-style-type: none"> <li>• Asset management</li> <li>• Asset information</li> </ul>
New development	<ul style="list-style-type: none"> <li>• Impact of new development on flood risk</li> <li>• Impermeable surfaces</li> </ul>

### 4.1 Flood risk information

#### Practical information and how to improve the Strategy

Section 3.6 above includes suggestions for additional evidence in the Strategy, including:

- Statistics on flooding
- Information on gully maintenance
- How the Strategy aligns with wider London
- Areas of flood risk
- What actions will be implemented and who is responsible
- What is already being done within Havering
- Nature-based solutions
- Yearly updates published about progress

There were also recommendations on how to improve the Strategy, including:

- To be made more user friendly and simplified
- To be organised into local areas
- To include collaborative working

More concise and practical information was requested, specifically a summary of flood risk in the borough, what to do and who to contact during a flood, house insurance, benefits of green infrastructure. Some respondents suggested sharing flooding information on the Havering News, which is delivered to residents and through social media.

The Council recognises the importance of concise and targeted flood risk information. Raising flood risk awareness is included in Objective A1 and measures 17 and 29 in the Action Plan. To

deliver these measures, the LBH website will be updated with a summary of flood risk to the borough, flood risk statistics and links to practical information on what to do during a flood and the need to ensure flood insurance is in place. In addition, more detailed flood risk information will be available once the Strategic Flood Risk Assessment is produced as a result of Local Plan Updates (refer to measure 22).

The rest of the suggestions are addressed in this section or have already been included in the Strategy and Action Plan. The table below shows where to find more information regarding suggestions for evidence or improvements on the Strategy raised at consultation.

*Table 4-2: Suggestions or evidence improvements raised at consultation*

Suggestions	Information available
Measures on the ground	<ul style="list-style-type: none"> <li>• Gully maintenance – see section 4.3 below (asset maintenance) and Action Plan for information on asset maintenance including gullies</li> <li>• Nature-based solutions – see section 4.2 below (green infrastructure) and Action Plan</li> <li>• What is already being done in Havering – see Section 4.2 of the Strategy (LLFA Powers and Responsibilities) and Action Plan for ongoing measures</li> </ul>
Working in Partnership	<ul style="list-style-type: none"> <li>• What actions will be implemented and who is responsible – see the Action Plan ('Responsibility' and 'Other Stakeholders' columns)</li> <li>• Collaborative working – see section 5 of the Strategy which refers to stakeholder engagement undertaken to develop the Strategy</li> <li>• Alignment with wider London – see Links with wider London priorities in the section below</li> </ul>
Simplify the Strategy	<ul style="list-style-type: none"> <li>• Make it more user friendly and simplified – section 1 (Non-technical Summary) of the Strategy provides a summary of the Strategy</li> <li>• Organise it into local areas – local flood risk information is shown in the different Critical Drainage Areas (section 4.3 of the Strategy)</li> </ul>
Yearly progress updates	<ul style="list-style-type: none"> <li>• Information on monitoring is included in section 6 below and section 7.2 of the Strategy</li> </ul>

### **Flooding events**

14 respondents reported past flooding. Where sufficient information was provided by the respondents, these have been mapped (see Figure 4-1 below). However, the LBH historic flooding register could not be updated as the information provided by the respondents was not sufficient to accurately identify the source of flooding nor the location beyond postcode level.

For data protection reasons, the Council is unable to respond to individuals. However, if consultees would like to provide further information on records of historic flood incidents, please email the LLFA at: [FloodAndWaterManagement@havering.gov.uk](mailto:FloodAndWaterManagement@havering.gov.uk).

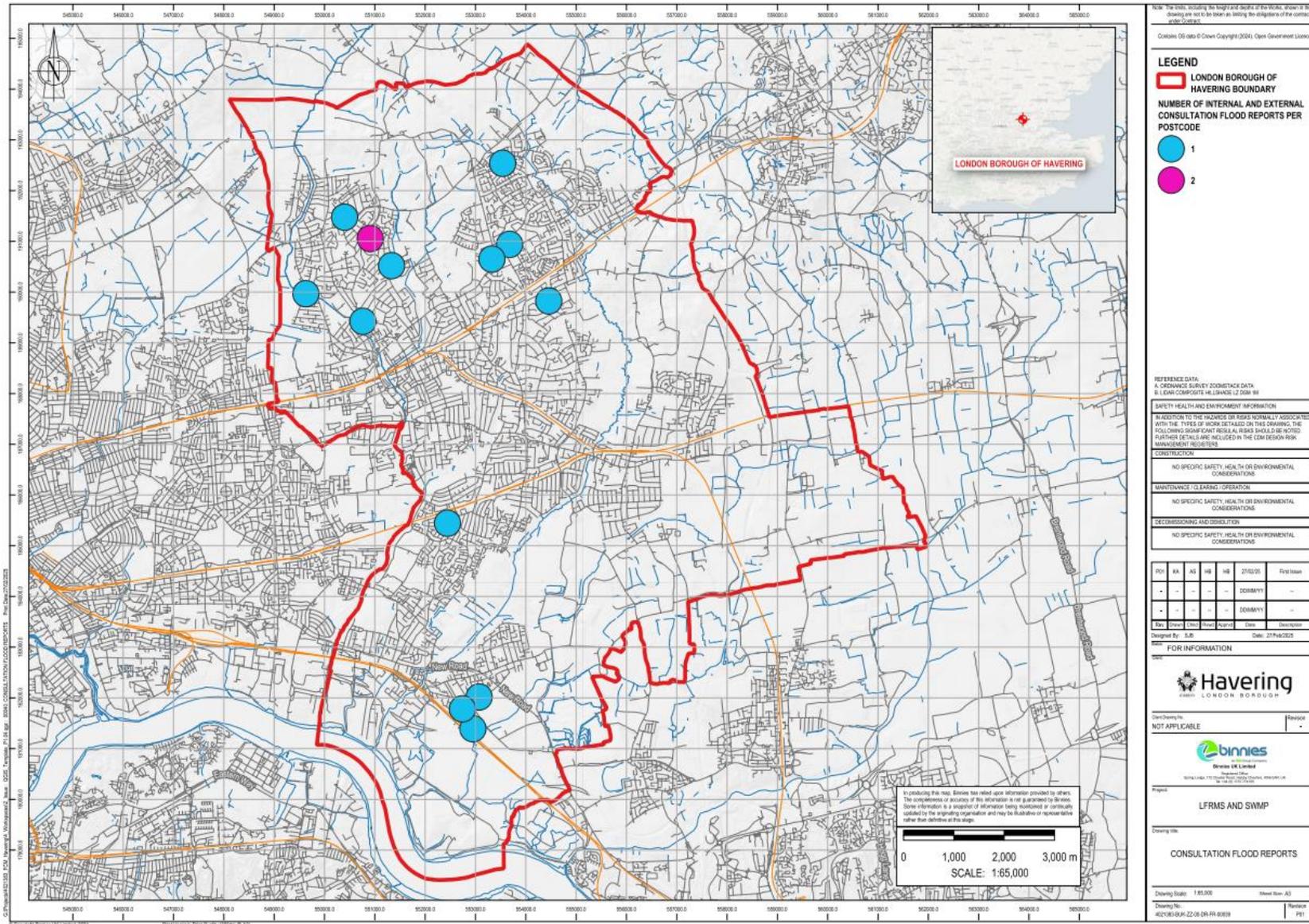


Figure 4-1: Historic Flooding events reported during consultation (not to scale)

## Stakeholders

The LLFA cannot implement the LFRMS and Action Plan on its own. Close partnership with many stakeholders is needed.

Whilst the Council has worked with the Roding, Beam and Ingrebourne (RBI) Catchment Partnership in the past, the Catchment Partnership responded to the consultation to raise further awareness of their catchment plan. To address this, Table 4.2-2 of the LFRMS (Other Important Flood Risk Stakeholders' Powers and Responsibilities) has been updated include a reference to the RBI Catchment Partnership. A new boroughwide measure (number 40) has been added to the Action Plan under Objective A2 (Working with Others to Reduce Flood Risk). This new measure reads as follows: "Work with the Roding, Beam and Ingrebourne Catchment Partnership to implement flood risk measures on the ground and engage with the local community more effectively, supporting their catchment plan<sup>1</sup> and the Council's Local Flood Risk Management Strategy and Action Plan."

Some responses highlighted the importance of flood wardens to support the community. Flood wardens help raise awareness of flood risk and can improve community preparedness. Boroughwide measure number 31 already refers to empowering volunteers to undertake Flood Warden duties in the borough. The implementation of this measure has already started through training carried out by the Red Cross in December 2023. 12 Emergency Warden volunteers attended this training.

Working with the community and the creation of a community climate resilience group was suggested. The Council welcomes the suggestion and would be open to explore it further if residents are interested, which would support achieving Objective A3 of the LFRMS "To work with Local Resilience Forum partners and residents to improve our preparedness, resilience, and response to flood events". No amendments to the LFRMS or Action Plan are proposed in response.

## Water Quality

The RBI Catchment Partnership highlighted the impact of highway runoff on river health. The Council agrees with this. In response, the LFRMS has been updated under 'Understanding Flood Risk/Surface Water Flooding' to read: "Surface water run-off from roads can detriment river health. The Road Pollution Solutions Tool<sup>2</sup> shows where nature-based solutions can intercept surface water outfalls to reduce road runoff pollution."

## CDA names

The Environment Agency asked for the CDA numbering to be amended to avoid confusion. They suggested cross referencing with the CDA name. This issue was previously discussed and agreed in a stakeholder workshop. The CDA numbers from the previous SWMP have been maintained for consistency, as explained in section 3.5 of the LFRMS. However, to address this comment, the name of the CDAs will be included in the Location column of the Action Plan to increase readability.

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<sup>1</sup> <https://storymaps.arcgis.com/collections/c15bdf25036549dc936e88fbee4b92d8?item=2>

<sup>2</sup> <https://mapapps.bgs.ac.uk/road-pollution-solutions/>

## Business community

Some respondents considered that there was little consideration of surface water flooding around the large business community. Businesses are included under members of the public and other stakeholders in Objectives A1 and A2 of the Action Plan. Boroughwide measure 29 aims to raise flood insurance awareness for both residents and businesses.

To recognise the importance of the business community in Havering, measure 17 of the Action Plan has been updated to specifically refer to businesses: "Improve understanding of flood risk in the borough and raise public awareness, including sharing information on the measures that can be implemented at property/business level". Objective A1 has been amended to read: "To work with Local Resilience Forum partners, businesses and residents to improve our preparedness, resilience, and response to flood events".

## Links with wider London priorities

A response from a Business Improvement District queried how the local strategy aligned with the wider London priorities. Section 4.1 of the LFRMS already includes tables showing the different legislative, policy and guidance drivers at national, regional and local level. It is recognised that new actions and priorities for London and Havering are likely to come from the London Surface Water Strategy<sup>3</sup> and Joint Thames Strategy refresh<sup>4</sup>. Therefore, Table 4.1-1 of the LFRMS (Regional flood risk management framework) has been updated to reference these strategies. The Council will review these strategies once they are published, to understand any implications and opportunities to address flood risk in the borough.

## 4.2 Flood risk measures

### Measures at property level

Some respondents wanted flood barriers to be provided for homes at risk, with specific support for Council tenants. The importance of property level flood resilience is recognised in the Action Plan through CDA measure 8 (Property-level protection and resilience) and boroughwide measure 45 (Investigate scope to supply airbrick covers to the properties at risk (particularly those with thresholds at a level lower than road level)). To deliver these measures, the LLFA will work with Housing colleagues in the Council to investigate what support is feasible for properties at risk of flooding. Measure 17 of the Action Plan has been modified to read: "Improve understanding of flood risk in the borough and raise public awareness, including sharing information on the measures that can be implemented at property level".

### Green infrastructure

Green infrastructure, Sustainable Drainage Systems (SuDS), and nature-based solutions were considered by many respondents as key in managing flood risk whilst providing multiple benefits. The Council agree and have already included six CDA specific measures in the Action Plan (measures 1 to 5, 11), which refer to the implementation of green infrastructure. Boroughwide measure 34 relates to reviewing existing Planning Policy to ensure that local flood risk management is suitably linked to new development, in line with SuDS approval status. The retrofitting of SuDS is supported by measure 46 and measure 55 relates to preparedness for

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<sup>3</sup><https://www.london.gov.uk/programmes-strategies/environment-and-climate-change/climate-change/climate-adaptation/surface-water-flooding/londons-surface-water-strategy>

<sup>4</sup><https://www.londonforum.org.uk/wp-content/uploads/2024/05/Rebecca-Law-slides-on-Law-Thames-Strategies-May2024.pdf>

the SuDS Approval Body role should government decide to implement Schedule 3 of the Flood and Water Management Act 2010.

### **Prioritising measures**

The RBI Catchment Partnership would like higher priority for measures such as urban river restoration, SuDS and reducing infiltration to surface water sewers. Section 6 of the LFRMS explains how the measures were shortlisted and prioritised using a multicriteria analysis followed by a cost benefit analysis, to show which measures are most viable within each Critical Drainage Area (CDA). Full details of the analysis undertaken can be found in the SWMP report. However, the Council supports the work of the RBI Catchment Partnership and will work closely with them to implement the Action Plan.

### **Funding**

Funding of measures was raised as a concern by some respondents. Section 7 of the LFRMS already explains the different internal and external funding mechanisms available for the Council and other RMAs.

## **4.3 Assets**

### **Asset maintenance**

The importance of asset maintenance was raised by many respondents. Some suggested actions which could improve asset performance, including cleaning gullies and drains, fining people who litter, removal of litter, leaves and rubbish from watercourses and rivers, raising some bridges heights, adding earth barriers and stopping sewage overflows.

Flood risk assets are maintained by various asset owners. The Council works with the relevant RMAs such as the Environment Agency for main rivers and Thames Water for the sewerage system to ensure maintenance of their respective assets. The actions raised through responses to the consultation that are for other RMAs, will be reported directly to them. Improvements to assets, such as increasing the heights of bridges, would be considered as and when appropriate funding streams become available and should these prove technically and economically feasible.

Maintenance of gullies, drains and water infrastructure (including watercourses) is important and many maintenance measures are already included in the Action Plan to deliver Objective A2 (CDA measures 9, 10 and boroughwide measures 42, 51, 57 and 58). However, a specific reference to maintenance will be included in Objective A2: "To work with internal and external stakeholders to take a consistent and prioritised approach to manage drainage and flood risk assets in the Borough, with an emphasis on maintenance of existing drainage infrastructure, including watercourses".

Issues with litter and fallen leaves on gullies and drains can be reported by residents and businesses by calling 01708 434343 or through the Council Portal<sup>5</sup>.

### **Asset Information**

In many instances, the ownership of drainage and flood risk assets is not clear. Some respondents raised this in their comments and the RBI Catchment Partnership suggested

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<sup>5</sup> <https://portal.havering.gov.uk/Process-Streets-LitterBin-Location/?auth=none>

developing an interactive asset map. One of the LLFAs duties is the maintenance of an asset register. Boroughwide measure 52 already refers to this duty: "Maintain the asset register and continue developing it, setting out the assets owned, maintained and managed by the LLFA and others". The LLFA will consider the suggestion of an interactive map as it continues to develop the asset register to deliver this action.

## 4.4 Impact of development

### Impact of new development on flood risk

The potential negative impact of new development on flood risk was a concern for many respondents. For new development and infrastructure projects, the planning system addresses flood risk at planning application stage through flood risk assessments (when required) and specific planning conditions. The LFRMS and Action Plan already reflect the importance of working with the Local Planning Authority to address the impact of new development, as set out in Objective A3 (Making places flood resilient), CDA measures 5 and 6 and boroughwide measure 34.

### Impermeable surfaces

Concerns were raised about the increase in impermeable surfaces in gardens, some linked to dropping the kerb to use front gardens for private car parking. The Council has a crossover policy which refers to the use of permeable surfaces and when the crossing needs planning permission. The Planning Portal includes information on paving front gardens<sup>6</sup> and the government has developed guidance on the use of permeable surfaces in front gardens<sup>7</sup>. Links to this information will be included in the Council's updated website. In addition, measure 49 of the Action Plan aims to reduce flooding on highways by adding drainage considerations to a checklist for scheme designs.

## 5. Summary of changes made as a result of the consultation

As explained in the sections above, many of the comments received were already addressed within the LFRMS and Action Plan. The LLFA considered all the feedback received and the following changes have been made to the LFRMS and the Action Plan as a result.

### Changes to the LFRMS

Table 4.1-1: 'Regional flood risk management framework' includes new references to the London Surface Water Management Strategy and the Joint Thames Strategy refresh.

Table 4.2-2: 'Other Important Flood Risk Stakeholders' Powers and Responsibilities' now includes a reference to the RBI Catchment Partnership, their objectives, the opportunities it represents to support the implementation of the LFRMS and a link to their website.

New information has been added to 'Understanding Flood Risk/Surface Water Flooding' (page 19) explaining the impact of surface water run-off from roads on water quality.

### Changes to the Action Plan

Measure 17 has been modified to include references to businesses and property level measures.

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<sup>6</sup> <https://www.planningportal.co.uk/permission/common-projects/paving-your-front-garden/planning-permission>

<sup>7</sup> <https://www.gov.uk/government/publications/permeable-surfacing-of-front-gardens-guidance>

The names of the CDAs have been included in the Location column of the Action Plan for readability.

A new measure has been added to the Action Plan to reflect partnership working with the RBI Catchment Partnership and support for their catchment plan. This action will sit under LFRMS Objective A2 (Working with others to reduce flood risk) and be a new number 40 boroughwide measure (Partnership working) to read as follows: "Work with the Roding, Beam and Ingrebourne Catchment Partnership to implement flood risk measures on the ground and engage with the local community more effectively, supporting both their catchment plan and the Council's Local Flood Risk Management Strategy and Action Plan." The numbering of the subsequent Action Plan measures has been revised to account for the new measure added.

### **Changes to both LFRMS and the Action Plan**

Objective A1 has been modified to include businesses and residents when working in partnership to improve our preparedness, resilience and response to flood events. Objective A2 has also been modified to add a specific reference to maintenance.

### **Further actions**

Where relevant, suggestions in the responses have been shared with internal stakeholders (Housing and Planning Departments) and other RMAs (Thames Water and the Environment Agency). The Cabinet members have also been informed of the consultation feedback through the Key Decision Process.

The Council website will be updated to add further flood risk information as explained in section 4.1 of this report.

## **6. Next Steps**

The LFRMS explains that the LLFA will carry out regular monitoring of the LFRMS. Although there are no set timeframes within which LFRMS' are required to be reviewed, the Council has agreed to review the Strategy within 6-years.

## **7. Glossary**

BID – Business Improvement District

CDA – Critical Drainage Area

LBH – London Borough of Havering

LFRMS – Local Flood Risk Management Strategy

LLFA – Lead Local Flood Authority

RMA – Risk Management Authority

RBI – Roding, Beam and Ingrebourne

SuDS – Sustainable Drainage Systems

SWMP – Surface Water Management Plan