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## CLIMATE EMERGENCY ADVISORY COMMITTEE

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Meeting to be held in Civic Hall, Leeds, LS1 1UR on  
Monday, 22nd July, 2024  
at 2.00 pm

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### MEMBERSHIP

#### Councillors

B Anderson  
E Bromley  
P Carlill  
R Downes  
K Dye (Chair)  
N Harrington  
O Newton  
A Rae  
M Rafique  
A Rontree  
M Shahzad  
P Stables  
J Tudor

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# A G E N D A

Item No	Ward	Item Not Open		Page No
1			<p><b>APPEALS AGAINST REFUSAL OF INSPECTION OF DOCUMENTS</b></p> <p>To consider any appeals in accordance with Procedure Rule 15.2 of the Access to Information Procedure Rules (in the event of an appeal the press and public will be excluded).</p> <p>(*In accordance with Procedure Rule 15.2, written notice of an appeal must be received by the Head of Governance Services at least 24 hours before the meeting)</p>	
2			<p><b>EXEMPT INFORMATION - POSSIBLE EXCLUSION OF THE PRESS AND PUBLIC</b></p> <ol style="list-style-type: none"> <li>1) To highlight reports or appendices which officers have identified as containing exempt information, and where officers consider that the public interest in maintaining the exemption outweighs the public interest in disclosing the information, for the reasons outlined in the report.</li> <li>2) To consider whether or not to accept the officers recommendation in respect of the above information.</li> <li>3) If so, to formally pass the following resolution:-</li> </ol> <p><b>RESOLVED –</b> That the press and public be excluded from the meeting during consideration of the following parts of the agenda designated as containing exempt information on the grounds that it is likely, in view of the nature of the business to be transacted or the nature of the proceedings, that if members of the press and public were present there would be disclosure to them of exempt information, as follows:-</p>	

Item No	Ward	Item Not Open		Page No
3			<p><b>LATE ITEMS</b></p> <p>To identify items which have been admitted to the agenda by the Chair for consideration</p> <p>(The special circumstances shall be specified in the minutes)</p>	
4			<p><b>DECLARATION OF INTERESTS</b></p> <p>To disclose or draw attention to any interests in accordance with Leeds City Council's 'Councillor Code of Conduct'.</p>	
5			<p><b>APOLOGIES FOR ABSENCE</b></p> <p>To receive any apologies for absence from the meeting.</p>	
6			<p><b>MINUTES OF THE PREVIOUS MEETING</b></p> <p>To receive and approve the minutes of the meeting held on 17<sup>th</sup> June 2024.</p>	7 - 14
7			<p><b>OPEN FORUM</b></p> <p>At the discretion of the Chair, a period of up to 15 minutes may be allocated at each ordinary meeting for members of the public to make representations or to ask questions on matters within the terms of reference of the Committee. No member of the public shall speak for more than five minutes in the Open Forum, except by permission of the Chair. Please note: Members of the public are asked to submit a video of their question or statement to <a href="mailto:climate.emergency@leeds.gov.uk">climate.emergency@leeds.gov.uk</a> by 5.00 pm on <b>Wednesday 17<sup>th</sup> July 2024</b></p>	

Item No	Ward	Item Not Open		Page No
8			<p><b>LEEDS FOOD STRATEGY UPDATE</b></p> <p>(REPORT TO FOLLOW)</p> <p>The Senior Project Manager, Climate, Energy &amp; Green Spaces team, will attend the meeting to provide a presentation to Members on the Strategy and the work undertaken since the Committee last considered the Food Strategy on 27<sup>th</sup> November 2023.</p>	
9			<p><b>UPDATE ON WORK TO IMPLEMENT AND UPDATE THE LEEDS FLOOD RISK MANAGEMENT STRATEGY</b></p> <p>To receive an update from the Executive Manager, Flood Risk and Climate Resilience, City Development, on the implementation of the Leeds Flood Risk Management Strategy. This update examines the implementation of the Strategy over the last 12 months and provides a summary of the measures that are set out for the years ahead.</p>	15 - 46
10			<p><b>DATE AND TIME OF NEXT MEETING</b></p> <p>To note the date and time of the next meeting as Monday 23rd September 2024 at 9.30 am.</p>	

**Third Party Recording**

Recording of this meeting is allowed to enable those not present to see or hear the proceedings either as they take place (or later) and to enable the reporting of those proceedings. A copy of the recording protocol is available from the contacts named on the front of this agenda.

Use of Recordings by Third Parties– code of practice

- a) Any published recording should be accompanied by a statement of when and where the recording was made, the context of the discussion that took place, and a clear identification of the main speakers and their role or title.
- b) Those making recordings must not edit the recording in a way that could lead to misinterpretation or misrepresentation of the proceedings or comments made by attendees. In particular there should be no internal editing of published extracts; recordings may start at any point and end at any point but the material between those points must be complete.

## Climate Emergency Advisory Committee

Monday, 17th June, 2024

**PRESENT:** Councillor K Dye in the Chair

Councillors B Anderson, E Bromley,  
P Carlill, R Downes, N Harrington, A Rae,  
M Rafique, A Rontree, M Shahzad,  
P Stables and J Tudor

### **1 Appeals Against Refusal of Inspection of Documents**

There were no appeals against the inspection of documents.

### **2 Exempt Information - Possible Exclusion of the Press and Public**

The agenda contained no exempt information.

### **3 Late Items**

No late items of business were added to the agenda.

### **4 Declaration of Interests**

No declarations of interest were made.

### **5 Apologies for Absence**

Apologies for absence were received from Councillor O Newton.

### **6 Minutes of the Previous Meeting**

**RESOLVED** - That the minutes of the meeting, held on the 18<sup>th</sup> of March 2024, be approved as a true and correct record.

### **7 Matters Arising from the Minutes**

The following matters arising were raised:

#### Minute 58 – Directors Update of Children and Families

The last three bullet points on page 8 on the Agenda referenced information regarding, social worker electric vehicle trials, school and other relevant sites climate adaptability plans, teacher workshops and best practise discussions, that was to be provided back to Members by the Directorate. Details on these matters had not yet been provided and were to be followed up.

#### Committee Membership

It was clarified that Councillor A Rontree had been appointed to replace Councillor J Bowden via a delegated decision notice. This had occurred after the Agenda had been distributed as Councillor J Bowden was referenced as a Member on the front sheet of the pack.

### **8 Open Forum**

The Chair explained the procedure and requested Member's suggestions for groups of individuals who may provide future submissions to the Open Forum.

Draft minutes to be approved at the meeting  
to be held on Monday, 22nd July, 2024

The following submission was raised under the Open Forum item.

### Leeds Children's Mayor

A presentation was provided by the Leeds Children's Mayor, from Ireland Wood Primary School, which detailed his work on addressing the climate emergency. He had been involved in various initiatives at 27 events, projects and talks since his election which helped raise awareness to climate change. Incredible Edible workshops had been run from Ireland Wood Primary School to develop and encourage sustainable practises, with a focus on food production and composting. An apple tree had been planted at the school which was sentimental and a lasting gift as he was leaving for high school next year. Tree planting had been secured through a project with the Woodland Trust, community litter picks had been conducted and were proposed to take place twice a year and in May 2024 a walk to school week had received positive engagement and results with improvements to air quality. The small collective actions contributed to the wider picture and helped inspire others to initiate activity and do their bit, and also for people of all ages to be mindful of their environmental impact. As part of his manifesto, he had helped promote the Leeds By Example Toolkit, providing information of combatting climate change with actionable steps. Nowell Mount Community Centre had run a Support Winter Coat Campaign which the Leeds Children's Mayor had engaged with and met with hardworking volunteers; he had also represented CHORAL (Child Health Outcomes Research at Leeds) to provide better futures for young people. To spread awareness and research projects visits to Grime Dyke Primary School and Temple Newsam Farm had been made. A 'Running out of time' event had been supported by him and the Executive Member for Climate, Energy, Environment and Green Spaces to raise awareness of the need for immediate action to mitigate and adapt to climate change. Members were requested to share the climate action route map with other primary schools and in conclusion the Leeds Children's was proud of the progress and awareness he had raised but there was much more work to be done.

Members thanked the Leeds Children's Mayor for his presentation and all his support and success with the work that aligned to the Committee.

## **9 Overview of Climate Mitigation and Adaptation in Leeds**

The report of the Chief Officer, Climate, Energy and Green Spaces (CEGS) introduced a presentation which gave the Committee an overview of carbon literacy and an insight into how the Council and wider city was addressing climate mitigation and climate adaptation, as well as the sectors and partnerships the Council engaged with.

The Chair noted that it was a pre-election period and the items for consideration by the Committee had been selected to limit political discussion whilst also providing a good overview of the Committee's remit for new Members.

Polly Cook, Chief Officer, Climate, Energy and Green Spaces, and Rachel Wainwright, Policy Officer, presented the report and highlighted the following information:

- Targets had been omitted from the report and presentation, in line with the politically conscious approach.

- The CEGS department held responsibility for developing climate policy and delivery for the Council, as well as engaging with other departments and seeking improvements to climate action work. It was noted that Directors attend the Committee over the year to provide updates on relevant progress.
- It was outlined that mitigation and adaptability were correlated counterparts, with mitigation focused on ending Leeds' contribution to climate change and reliance of fossil fuels and adaptation was to reduce impacts of future climate hazards.
- The Carbon Disclosure Project was noted to be a useful international, independent review of the action in Leeds, with a score provided to benchmark and compare results and share ideas with other core cities and organisation. Leeds had proudly received an A rating; however, the criteria changed each year to encourage improvements and there was greater focus on adaptability methods.
- Relevant partners that CEGS engaged with were noted as Yorkshire and Humber Climate Commission, Climate Action Leeds, University of Leeds, Place-Based Climate Action Network and Leeds Beckett University. Achieving net zero and creating sound adaptability plans required a multiagency approach.
- Yorkshire and Humber Climate Commission and Leeds Climate Commission were noted to be good engagement forums, bringing in businesses and relevant stakeholders such as utility companies, allowing information to be shared to encourage large scale and efficient action.
- Climate Action Leeds was community led, linked to the University of Leeds, and encouraged localised community action through the Hubs and the organisation had previously provided Open Forum submissions.
- Public sector organisations were outlined to have the biggest initial impact against climate change, with them being large energy consumers across the city and also holding influence.
- Links to core cities allowed better understanding of the impacts of Government policy, alongside work with the West Yorkshire Combined Authority (WYCA) allowed a collaborative approach to create a bigger difference and share best practises.
- The three scopes of emissions were explained as; 1 being direct from owned or controlled sources, 2 being indirect emissions from the generation of purchased energy and 3 being indirect upstream and downstream emissions that occur through procurement in the value chain of a reporting company. Business travel and employee mileage would also be scope 3.
- The understanding and measuring of scope 3 were globally underdeveloped and emerging data suggested that it could make up 80-90% of an organisation's emissions.
- Emissions data for Leeds was divided into sectors of domestic, transport, commercial and public sector, industry, waste management and agriculture, forestry and land usage. Reductions in domestic, transport and commercial and public sector emissions relied heavily on the decarbonisation of the grid.
- The work on district heating networks and Leeds PIPES had been significant which was connected to the energy from waste and the Recycling and Energy Recovery Facility, with generated heat piped around the city, heating buildings

and displacing gas. Retrofitting buildings to connect to Leeds PIPES was easier than other comparable environmentally friendly heating infrastructure.

- Major investments had been made for district heating network development with approximately half of the £62 million secured through various grant sources. It was still at an early stage with around 20% of available heat utilised, however, expansion plans were in motion, particularly into South Leeds.
- The policy network for district heating was progressing, with policies that mandated connection planned by 2025. Leeds PIPES was, so far, an 8 year flagship project, at its fourth stage, and Members were invited for a tour of the relevant infrastructure.
- The Public Sector Decarbonisation Scheme had been successful with around £40 million of funding secured in the first round, allowing improvements in energy efficiency for leisure centres and schools, utilising efficiency technologies such as solar panels and air source heat pumps, as well as connections to Leeds PIPES. The primary focus of the scheme was to decarbonise heat to reduce reliance on gas, balancing improvements with cost effectiveness. A challenge was noted with the funding bid process and criteria changes occurring.
- There had been a significant increase for electric vehicles (EV) usage, a graph was shown that displayed the uptake in registered plug-in EV vehicles within the Council. The number of charge points, including rapid EV charge points, in Leeds was in line with UK averages. Work to increase the number of charge points, assist people without off street parking and ways to secure and allocate more funding were ongoing.
- Successes were noted in social housing retrofitting, the Council had committed to investing £100million into retrofitting Council houses in March 2021, £60million had been delivered as of November 2023 and the full amount of investment was on track to be delivered by 2025.
- External wall insulation and ground source heat pumps had been installed at social housing tower blocks, allowing better sources of heat which used to rely on the storage of heat which had been difficult for consumers to determine expected usage requirements. Work with landlords to create energy efficient investments had been beneficial, economically, environmentally and socially.
- There were four general aims for adaptation action, to prevent hazards, protect the city from harm and damage, prepare to respond effectively and the ability to recover after an event. Each approach held different costs and benefits and a balance was needed between them.
- Climate risks in Leeds were categorized into four hazards, heat, floods, drought and cascading impacts. Cascading impacts were explained as factors to consider that occur outside of the city, such as weather impacting food production.
- Reflection on the impact the 2015 Boxing Day floods which had occurred in Kirkstall led to better preparation methods. The Leeds Flood Alleviation Scheme (LFAS) was comprised of two phases using both natural and engineered management measures.
- Approximately £200million had been invested in LFAS and since its initiation, it had been used nine times, which was more than originally projected. To date 512,000 trees had been planted as a natural defence. Approximately

4000 homes and 1000 businesses were protected against a 1-in-200 year flooding event by the scheme.

- A cross agency climate adaptation workshop was held in 2022, which had been continued with internal services to understand integrating climate adaptation, as well as continued partnership working. Adapting mindset, considerations and heatwave checklists were also outlined as appropriate measures.
- The CDP accreditation was a useful audit to track progression of adaptation work, as well as the Global Destination Sustainability Index which determines and compares sustainability practises.
- There were a diverse range of options and projects being developed and progress had been overall good, however, there was still work to be done to improve the resilience of Leeds to climate change.

During discussions the Committee discussed the following:

- It was confirmed that the net zero target applied to Leeds as a city and not just the local authority. The target was also focused on scope 1 and 2 emissions as it was created against available data at the time. It was also noted that the target was also to apply to Leeds and Bradford Airport buildings but not aeroplane emissions.
- The target for Leeds was net zero by 2030, which was considered ambitious. Other authority's targets varied from 2030 to 2038, with the WYCA target being 2038.
- Some opposition to the data and approach to combatting climate change was noted, with people previously attending the Committee's Open Forum on this matter. Schemes that contributed to net zero also held additional benefits, which needed to be clearly communicated.
- There was not yet any capacity pressure for EV and charging point provision, further data on charging point take up was agreed to be provided back to Members.
- Extreme cold had not been identified as a major risk within the UK, however, data gathering for other adverse weather events, such as storms, was ongoing any may be identified as risks to adapt to in the future.
- The 512,000 trees referenced in the LFAS were not all within Leeds, with many planted upstream in the Aire Valley, closer to river sources. A target to plant 50 hectares of trees each year in Leeds was also noted.
- The 1-in-100 and 1-in-200 year flood model approach was potentially outdated, based on previous data, further details were to be confirmed by a relevant officer working in flood risk management. Members noted this figure may need to be reviewed and it was outlined that flood risk was to be a future agenda item considered by the Committee.
- Clarification on the 1-in-100/200 flood risk model was outlined as the model being based on previous data and did not scale further risk than at the point of conception. A new model of 1-in-200+climate change was sometimes used to account for additional changes.
- The approach of the Committee and the CEGS service for addressing the issue of misinformation surrounding climate change was queried, as well as guidance for critical thinking and verification of information. In response it was outlined that the Council was a trusted brand and all information in the public

domain had been scrutinised and determined to be accurate. This matter was considered beyond the issue of climate and was to be referred to the Strategy and Resources Scrutiny Board for information regarding the communications process.

- Funding for Climate Action Leeds was secured for one more year out of the three year programme; how the organisation and Hubs would continue to operate and be properly funded was queried. Climate Action Leeds had sent out a survey to display the impact of their work to support their submission for additional funding.
- Paying staff for car mileage was considered necessary to meet work quotas and allow essential work, however, grey fleet mileage had significantly decreased since the pandemic and remote working was implemented where possible.
- With only 20% of available heat utilised as part of the district heating network, it was outlined that this was expected to grow as the scheme developed and was dependant on peak heat demand patterns through the seasons. Other cities that did not have the same waste processes to utilise would be able to use a variety of other processes, such as industrial, and also Leeds had alternative sources too.
- It was agreed that data for the current number of businesses that were connected to the district heating network was to be provided back to Members.
- There were funding inconsistencies for the process for retrofitting housing noted, however, this was largely due to factors of challenging criteria changes but positive influence on Government policy was sought.
- As people were subject to hose pipe bans when utility companies had been identified to having high levels of wasted water, stakeholders were to be influenced to implement best practise and to value resources. It was noted that the Environment, Housing and Communities Scrutiny Board may be able to look into this issue, alongside water pollution.
- The rollout plans for Leeds PIPES were ongoing with 15 current customers over 53 buildings. The figure for the customers on the waiting list was to be provided back to Members, but the overall expected take up was difficult to approximate given the factors of scoping heat demand although some larger connections were expected soon.
- Flood risk management plans for the River Wharf were to be explored later in the year when flood risk was an item considered by the Committee. There was a flood wall in Otley which was considered to potentially need extending.
- An annual report for air quality was to be developed, with year-on-year improvements noted. Greater focus on indoor air quality was emerging and a conference with medical professionals had been held to discuss advice for patients, greener routes and public medical alerts. It was requested that air quality study would also cover outer areas of Leeds.
- The Chair provided further information for new Committee Members, noting that there was a rolling programme for Council service Directors to attend meetings and this year they were requested to focus on procurement, linking to scope 3 emissions, as well as adaptation plans.

## **RESOLVED –**

- a) That the information presented in the meeting in preparation for the commencing of the 2024/25 work programme, be considered.
- b) That the report, along with Members comments, be noted.

## **10 Climate Emergency Advisory Committee 2024/25 Forward Plan**

The report of the Chief Officer, Climate, Energy and Green Spaces set out the meeting schedule for the Climate Emergency Advisory Committee for the 2024/25 municipal year and proposed that each meeting would progress one (or more) of the key climate change mitigation and adaptation themes as identified in the attached work programme.

Polly Cook, Chief Officer, Climate, Energy and Green Spaces, presented the report and highlighted the following information:

- The proposed items of business contained in the forward plan focused on a mix of topics across mitigation and adaptation, as well as outward and inward looking discussions and points of influence.
- Member's views, comments and amendments to the schedule were sought, including providing any topics and submissions for the Open Forum and Director's updates.

During the discussions the following matters were considered:

- In order to address alternative views on climate change from external groups or individuals, it was suggested that a private sub-group meeting may be appropriate to address varied views, perception, misinformation concerns and confirming evidence which led the Council to conclude on specific policies. In response there was discussion as to whether this met with the aims and outcomes of the Committee, given its role to advise the Executive Board and entering re-discussion for the Committee's direction may be time intensive with limited results for climate change mitigation and adaptation.
- Some support for the private sub-group approach was outlined as the more accurate information provided was beneficial for society so people can make more informed decisions and develop an understanding for individual responsibility and misinformation.
- A session on scrutiny of information and communication may be of use to Members in order to provide correct information to the public to support the Committee's beliefs and pledges, as well as to disprove misinformation through evidence based conclusions.
- It was proposed and agreed that one of the working groups could cover communication and engagement to address common concerns and encourage carbon literacy.
- It was agreed that an item regarding air quality across the district of Leeds be added to the forward plan, this was also to include discussions on air quality issues stemming from Leeds and Bradford Airport.
- It was confirmed that discussions of pesticide use were relevant to, and were to be included in, the tree planting and maintenance update that had been scheduled.
- Further collaborative work with relevant organisations, such as WYCA and the Yorkshire and Humber Climate Commission, was suggested in order to streamline work and share learning and practise. The forward plan had allowed for topics that covered internal and external impact and it was noted

that the Chair sat on a WYCA Climate, Energy and Environment Committee, which fed into the Committee's plans and discussions.

- The WYCA transport plan scoping consultation had been paused during the pre-election period, but when the results had been published, the contents were relevant to the Leeds transport plans, with substantial funding expected to be provided by WYCA. This was also to be linked to air quality and outer area provision.
- Consideration of food security and cascading effects were proposed, along with the effects climate change had on local food production schemes. This was to be researched in order to understand the Committee's remit of influence.
- The workshops were a good arena for private discussion and the invites were extended to all Leeds City Councillors; the more in attendance allowed for a better use of time and a wider scope of discussion.
- The Chair noted that meetings would regularly be 3-hour sessions. Members noted that some experienced clashes or short timeframes between other meeting commitments and may require some administrative changes which the Chair was open to discuss.

**RESOLVED –**

- a) That the proposed meeting schedule for the municipal year contained in Appendix 1, be considered.
- b) That the report, along with Members comments, be noted.

**11 Date and Time of Next Meeting**

**RESOLVED –** To note the date and time of the next meeting as Monday 22nd July 2024 at 2.00 pm – this meeting was to be held in person and form a formal meeting rather than a Consultative Meeting, as originally proposed, as agreed by the Chair.

## Update on work to implement and update the Leeds Flood Risk Management Strategy

Date: 22<sup>nd</sup> July 2024

Report of: Executive Manager, Flood Risk and Climate Resilience

Report to: Climate Emergency Advisory Committee

Will the decision be open for call in?  Yes  No

Does the report contain confidential or exempt information?  Yes  No

### Brief summary

Under the Flood & Water Management Act 2010, Leeds City Council as the Lead Local Flood Authority for Leeds is required to have a Local Flood Risk Management Strategy (LFRMS).

This update examines the implementation of the Strategy over the last 12 months and provides a summary of the measures that are set out for the years ahead.

This report allows the consideration of the implementation of the Council's Local Flood Risk Management Strategy.

A comprehensive briefing was provided to the Infrastructure, Investment & Inclusive Growth Scrutiny Board on 28<sup>th</sup> February 2024 as part of an annual review process and a copy of the report and appendices are attached for consideration.

The Executive Manager, Flood Risk and Climate Resilience, City Development, will attend the meeting to provide the Committee with a presentation.

### Recommendations

- a) That the Committee review the implementation of the Strategy and provides comments to help inform its further development and be considered at the next strategy update due to take place in 2025

## What is this report about?

- 1 Under the Flood & Water Management Act 2010, Leeds City Council as the Lead Local Flood Authority is required to have a Local Flood Risk Management Strategy (LFRMS). This update examines the implementation of the Strategy over the last 12 months and provides a summary of the measures that are set out for the years ahead. This also allows the scrutiny of the implementation of the Council's Local Flood Risk Management Strategy.

## What impact will this proposal have?

- 2 The report will provide an update to the Committee on the implementation of the Local Flood Risk Management Strategy along with an opportunity for committee members to provide comment and scrutiny.

## How does this proposal impact the three pillars of the Best City Ambition?

Health and Wellbeing       Inclusive Growth       Zero Carbon

- 3 Ongoing work to reduce the risk of flooding is a key activity within sustainable infrastructure and reflects the council's 2019 declaration of a climate emergency and its intention to work towards being a carbon net zero city by 2030. Delivery of the LFRMS will help to reduce the impacts of flooding and therefore deliver managed adaptation to the future impacts of climate change. In delivering the capital programme for flood alleviation the carbon impact of these schemes is considered and we promote lower carbon solutions. Prevention of flooding also positively impacts carbon emissions by avoiding the need to rebuild, repair and refurbish properties impacted by flooding, we are able to demonstrate this using carbon calculator tools developed with the Environment Agency.
- 4 Inclusive Growth is promoted by the prevention and amelioration of flooding to properties and businesses and the resilience of the city to flooding is enhanced. Business is confident that its property will be protected, are encouraged to remain and invest. The increased resilience of infrastructure networks and structures also supports inclusive growth.
- 5 The threat of and experience of flooding can impact on people's mental health and general health and wellbeing, schemes to prevent flooding can have a very positive impact on improving peoples mental health by enhancing people's ability to feel safe in their home and not under threat of flooding.

## What consultation and engagement has taken place?

Wards affected: ALL

Have ward members been consulted?       Yes       No

- 6 A wide consultation was carried out for the adoption of the Strategy. Further local consultation and engagement has been undertaken across the flood risk management service from the development control functions, day to day investigations, the maintenance of our flood risk assets, to the specific events and updates undertaken by the Strategy and New Works team in relation to the Flood Risk Management Capital Programme. Further information on the service can be found at [How we are reducing flood risk \(leeds.gov.uk\)](https://leeds.gov.uk/how-we-are-reducing-flood-risk)

**Strategy and New Works:** undertake a wide range of consultation and engagement with those residential properties and businesses directly impacted by flooding, ward members, stakeholders

### **What are the resource implications?**

- 7 The implementation of the LFRMS will continue to have an impact in the Council's revenue budgets but the LFRMS will ensure that any expenditure is prioritised. Furthermore, it will allow stronger cases to be built for future externally funded grant applications. A case has been made to the Strategic Investment Board for capital funding which has been shown to attract external funding at a rate of at least 1 to 7 (for every £1 of the council capital funding we have attracted at least £7 of external funding).

### **What are the key risks and how are they being managed?**

- 8 The Strategy allows the Council to prioritise its work on Flood Risk, leading to reduced overall risk of flooding.

The Significant Risks identified are:

- Financial pressures on the Flood Risk Management Revenue Account and wider Council and how this may impact future service levels.
- Shared Corporate risk of not being a net zero carbon city by 2030
- Impact of changing climate risk, flooding is the greatest climate risk the city faces
- Recruitment and retention of skilled technical staff

### **What are the legal implications?**

- 9 The F&WM Act places a requirement on Leeds to prepare and manage the LFRMS. The Act requires Scrutiny of the Council's activities in this area.

## **Options, timescales and measuring success**

### **What other options were considered?**

- 10 This is not a decision report and so consideration of other options was not required

### **How will success be measured?**

- 11 Eight key monitoring indicators are used in the Flood Risk Management Strategy and are listed below and are reported on in more detail in Appendix 2.

The number of measures in the 'List of Measures' which have been completed.

- a. Are there active measures in the 'List of Measures' which cover each of the six 'Objectives for managing flood risk'?
- b. Improving engagement on flood risk - How many public engagement events have taken place? (School events, flood action group meetings).
- c. The number of new developments where Sustainable urban Drainage Systems (SuDS) have been installed? Such as, green corridors, rainwater harvesting, green roofs, land management (tree planting).
- d. Are Property Flood Resilience (PFR) schemes reducing flood risk.
- e. Number of Leeds City Council staff engaged in flood risk management activities.

- f. Reliability of public transport – Number of Metro bus and train routes disrupted by flooding/drainage problems?
- g. Is the LFRMS consistent with the plans and actions of partner organisations?

**What is the timetable and who will be responsible for implementation?**

12 The implementation of the LFRMS is a continuous process. The next refresh of the LFRMS is scheduled for 2024, preparation for commissioning that work will begin in 2023.

**Appendices**

- Report and appendices to Scrutiny Board Infrastructure, Investment and Inclusive Growth, 28<sup>th</sup> February 2024

**Background papers**

- None

# APPENDIX 1 – Local Flood Risk Management Strategy Update 2023

## 1 Background

- 1.1 Following major floods during 2007, the Government set up the Pitt Review to investigate the way flood risk management agencies dealt with such a major event. This review came up with 93 recommendations, which Government accepted.
- 1.2 A number of these recommendations needed legislation to give local authorities and agencies the necessary powers or duties and hence the introduction of the Flood & Water Management Act 2010 (F&WMA). One of these duties was for all Lead Local Flood Authorities (Leeds City Council for this area) to prepare a Local Flood Risk Management Strategy (LFRMS).
- 1.3 The Strategy was last refreshed and reviewed by Scrutiny Board (Sustainable Economy and Culture) in December 2018 and adopted by Full Council on 27<sup>th</sup> March 2019. And is due to be updated in 2024.
- 1.4 **Leeds Local Flood Risk Management Strategy**

The Strategy outlines the approach the Council and other agencies will take regarding flood risk management. The Strategy contains:

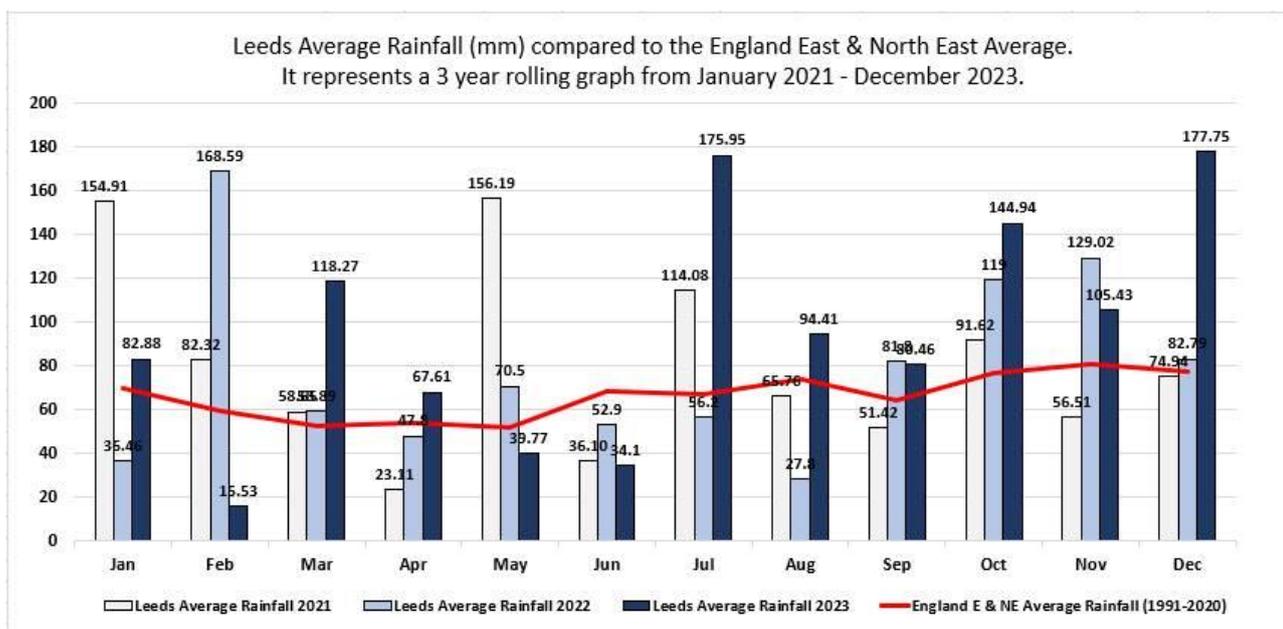
- a. The objectives for managing flood risk.
- b. The measures proposed to achieve those objectives.
- c. Timeframe for any measures.
- d. Costs and benefits of the measures and how they are to be funded.

Specific measures are contained in Appendix C of the Strategy, which have been updated regularly to ensure it is reactive to latest priorities. The section below outlines the work of the Flood Risk Management Team over 2023 with additional works and actions also undertaken

## 2 Major Storm Events

- 2.1 February storms have become a regular feature in recent years, however these didn't occur in 2023. As the graph shows, February was quiet and the increased rainfall in subsequent months, particularly in July, did not produce named storms until October 20<sup>th</sup> with the arrival of Storm Babet. This storm was closely followed by Storms Ciaran (November 1<sup>st</sup> – 2<sup>nd</sup>), Debi (November 13<sup>th</sup>), Elin (December 9<sup>th</sup>), Fergus (December 10<sup>th</sup>), Gerrit (December 27<sup>th</sup>) and the heavy rainfall continued into the new year with Storm Henk (January 2<sup>nd</sup> 2024), Storm Isha and Storm Jocelyn (23<sup>rd</sup> January). This is the tenth named storm in five months and it's only the second time in the UK storm season that the letter J has been reached in the alphabet. (Storm season runs from the start of September to the end of the following August). For more background on this <https://blog.metoffice.gov.uk/2024/01/23/why-have-there-been-so-many-storms-in-the-uk-this-year/>
- 2.2 The graph below shows a very high increases in rainfall over the past few months since July. And so, the arrival of the storms outlined above in quick succession caused land to be saturated, resulting in issues with overland flow, blockages in

watercourses and a large amount of debris on the hotspots that are cleared by our contractors.



2.2 The experiences of the storms described above have demonstrated that the city is still vulnerable to a wide range of flooding impacts. Several properties, roads and businesses were badly affected. The council is working closely with partner organisations, in particular the Environment Agency and Yorkshire Water, to deliver improvements to natural and engineered networks and to install new and improved flood alleviation measures. However more work is needed to address current and future flood risk and to mitigate the increasing impact of climate change.

### 3 Flood Risk Management team updates in 2023

3.1 Flood Risk Management undertake a wide range of flood risk activities ranging from advising on Planning applications and Planning/ flood risk policies, to the monitoring and data gathering of incidents, to the carrying out of investigations, implementing capital schemes and the operation and maintenance of assets. The section below covers these activities in more detail.

#### Asset Management Team – Including FAS Team, Investigations Team & Maintenance Team

3.1.1 The FRM Asset Management Team is responsible for operating, maintaining, and managing a diverse range of assets to ensure their proper functioning. One of these assets is part of LFAS1, a large and intricate flood defence scheme located on the river Aire. This scheme incorporates active moveable weirs at Crown Point and Knostrop, as well as active flood gates and passive linear defences. The team's duties include the management and maintenance of LFAS1, as well as other significant recently constructed flood risk schemes such as Otley, Killingbeck and Mickletown.

3.1.2 In addition to these schemes, the team also oversees the maintenance of various other assets, including reservoirs, becks, culverts, trash screens, pumping stations, petrol oil interceptors, and septic tanks. The responsibility for maintaining these assets is often shared among multiple council departments, external

organizations, and private companies. The AMT collaborates with these parties to promote flood risk resilience throughout the city.

- 3.2 **FAS Team:** The Flood Alleviation Schemes (FAS) team takes an active role in operating, managing, and maintaining several large flood alleviation schemes within the city. Their main objective is to protect residents, businesses, and infrastructure from flooding. The moveable weirs and flood gates located throughout the city may require intervention or operation at any time. To ensure a prompt response to incidents, a dedicated team is available 24/7. Staff members from the wider Flood Risk Management (FRM) team choose to participate in incident response roles in addition to their regular duties. The FAS team is responsible for training and coordinating these incident roles, which include a Duty Flood Risk Manager (DFRM) in charge of all resources and the FRM response. Site Operatives (SO's) are responsible for operating flood assets in various locations. The FAS team also maintains and inspects FAS1 assets, which pose unique and interesting challenges. Currently, the team is working on streamlining operations, increasing resilience through proactive measures and sustainable practices, and building more flood-resilient communities.
- 3.2.3 During recent storm events, the duty teams have been active, closely monitoring river levels that have been approaching activation levels.
- 3.2.4 For background on the deployment of the weirs see:
- [Leeds flood defences perform as designed during Storm Babet](#)
  - [Winter storm season requires us to be prepared, as major flood and climate resilience works across Leeds continue](#)
- 3.3 **Investigations Team:** the team helps Leeds City Council fulfil its legal obligation to investigate flooding as the Lead Local Flood Authority, as mandated by the Flood and Water Management Act 2010. Their role is to understand the causes of flooding, prevent future incidents, and protect communities by engaging directly with residents, providing support and guidance, and collecting evidence. They are the primary point of contact for the public, Councillors, and other stakeholders, actively participating in community group meetings, workshops, and events to inform and involve the community.
- 3.3.5 In 2023, the team worked with a contractor to clear 2,442 trash screens, including critical grids that are prone to flooding. They investigated more than 270 flooding incidents, resulting in 162 referrals for maintenance issues such as clearing grids, unblocking culverts, and maintaining watercourses. Additionally, they conducted 185 routine inspections of becks, identifying and removing obstacles that obstruct the flow of water.
- 3.3.6 Recent storms have brought a significant number of debris, including a sofa, trolleys, and a scooter, onto the trash screens in LCC watercourses. The need for debris removal from grids and watercourses has increased during the winter, when the land is saturated and overland flow becomes problematic. Surface water flooding remains a complex issue for residents and businesses in the city, and the team collaborates closely with third parties to promote flood preparedness within the community.
- 3.3.7 Furthermore, the team works together with other LCC H&T departments to survey and investigate existing drainage systems for highway design and development purposes.

- 3.4 **Maintenance Team:** The Maintenance Team is responsible for both reactive and planned maintenance to manage flood risk throughout the city, protecting residents, businesses, and infrastructure. They identify and repair damaged drainage assets through a robust regime of inspections and referrals. Additionally, the team supports other LCC departments in operating and maintaining fifteen pumping stations, six Septic Tanks, and thirty-seven Petrol Oil Interceptors through service level agreements and associated telemetry monitoring and development.
- 3.5 The team works closely with others to prepare for forecasted storm events. This includes:
- Inspection of flood alleviation schemes: All 12 flood alleviation schemes throughout the city were inspected during storm Babet, and they were found to be responding well and operating as expected, providing full protection to properties and communities.
  - Reservoirs: Inspections were conducted on reservoirs regulated by the Reservoir Act. Fleakingley Reservoir required active intervention to divert flows away from the reservoir and prevent inundation of the receiving St Aidan's reservoir.
  - Pumping Stations: Critical surface water pumping stations throughout the city are monitored using telemetry.
  - ELOR Drainage: Ongoing work is being done to understand new assets and their maintenance. Inspections before and after floods have provided a better understanding of flooding mechanisms and any potential issues.
  - FAS1 and FAS2 Trees: A desk study was conducted to identify trees most at risk, and a post-flood review was carried out to assess any damages.
- 4 **FRM Data Systems Team:** Several updates have been made to our data systems to improve recording and functionality of assets, hotspots and incidents and improve team understanding of flood risk.
- 4.1 AMX is a new and fully integrated Asset management system which allows us to organise and inspect Leeds City Councils' flood defences and watercourses. It allows one-system to bring together our assets, hot spots (grids), inspections of assets, investigations, surveys and works referrals into one system. AMX is linked directly to our Geographical Information System to allow updates to the asset register to be directly reflected in AMX. It has improved our way of recorded assets and incidents by integrating these into one system. AMX allows the Flood Risk Management (FRM) Team to respond to flood incidents and keep a record of past incidents for historic purposes. And allows the FRM team to add and update scheme assets (such as FAS 1, FAS 2, Mickletown FAS and Glebelands FAS, to name a few) and their inspections to ensure we are protecting properties from flooding. It is used to prepare for flooding events, such as those caused by storms, by allowing proactive maintenance regimes to be coordinated prior to possible flooding, for example, by clearing grids on a routine maintenance regime. In summary AMX holds: Assets: 50,852 of which are FAS related: 816 It also holds information on Surveys: 3742 Incidents: 10782 Maintenance referrals 329 Inspections, over 1000 scheduled and Hot spots (grid maintenance) 197.
- 4.2 An additional system we utilise is Maprain which provides useful data on forecast and actual rainfall events across the city, as well as historical evidence to support Highways when processing legal claims. And NAFRA2 New National Modelling (NNM) which reviewed the latest Surface Water modelling is now complete. FRM used local and specialised knowledge to ensure the outputs are represented correctly in well-known hotspots and added any completed FAS and culverts to

the map to ensure these are taken into consideration with the modelled outputs. Which is utilised within planning application responses, incident investigations and scheme development.

5 **FRM Development Control:** Leeds City Council in their role as the Lead Local Flood Authority (LLFA) are a statutory consultee for all Major planning applications and pre-applications in relation to the management of surface water drainage. We are also the consenting authority for Works Affecting a Watercourse and determine applications made to us under the Land Drainage Act 1991. For the year-to-date (end of quarter 3 Oct-Dec 2023 ) Development Control have provided a bespoke response to a total of 1411 applications, with 408 of these being Major applications. We have also responded to 105 separate enquiries sent direct to Development Control which related to highway improvement projects, pre-planning application enquiries, watercourse consent pre-submission enquiries, Councillor queries, and homeowner enquiries. Over the course of 2023 the number of planning application consultations has continued to remain consistent at between 150 – 170 per month, with approximately 1/3 being Major applications which require detailed review, considerable input, and in many cases re-consultation. To place this level of planning activity and LLFA consultation into context, Leeds LLFA provide bespoke comment to more Major application consultations than all the other West Yorkshire LLFA's combined.

5.1 In respect of Watercourse consent applications, for the year-to-date the Development Control Team have determined 22 consent submissions.

5.2 FRM have also been jointly working with Planning to revise the current Strategic Flood Risk Assessment (SFRA) for Leeds. This is a critical element of the Climate Change Local Plan update and is in response to the declaration of the Climate Emergency. The revised SFRA will inform the review and revision of flood risk policies in the Local Plan update. However, the SFRA does has a broader purpose in delivering a robust depiction of flood risk across the district it informs policy, provides a more informed response to development proposals affected by flooding, and helps to identify and implement strategic solutions to flood risk providing the basis for possible future flood attenuation works.

Following the public consultation period detailed comments were received from the Environment Agency and numerous commercial and private respondents. The SFRA was amended, where possible and appropriate, to largely reflect their suggested alterations. We undertook a short re-consultation with the Environment Agency and aside from minor suggested wording alterations for the policies, their main concerns for the SFRA were:

- Consistent use of proxy catchments for mapping of functional floodplain,
- Easy identification of the source of mapping, and
- Identification of residual flood risk areas.

5.3 It should be noted at this stage that the EA are in large part content with, and supportive of, the updated SFRA. None of the issues raised are a 'soundness' concern for the updated SFRA and we have now produced a Technical Note to address these specific concerns which will be issued to the EA. The interactive mapping, which is an excellent and extremely useful tool, is now available for use on-line. [Local Plan Update - SFRA 2022.pdf \(leeds.gov.uk\)](#), [SFRA final\\_exp\\_v2 \(arcgis.com\)](#)

5.4 Additionally, there have been several major and upcoming policy changes:

- The re-drafted Minimum Development Control Standards for Flood Risk guidance document was published in May on the 'Advice for Developers' and 'Natural Resource and Local Plan' webpages. This was a significant piece of work for the Development Control team, and we are pleased that the document has been well received and used. Our counterparts in the West Yorkshire Flood Risk Management teams use this document as an exemplar template and basis for their own technical standards. The document will periodically be updated to reflect new or revised guidance and any changes will be submitted to Planning Board for approval. [Minimum development control standards for flood risk \(leeds.gov.uk\)](https://www.leeds.gov.uk/minimum-development-control-standards-for-flood-risk)
- The Government announced in early January 2023 a proposed consultation and review on how Schedule 3 of the FWMA 2010 will be implemented. This relates to a framework for the approval and adoption of sustainable drainage systems and could have considerable implications for the Flood Risk Management team. At some point early in the new year we are expecting communication from DEFRA announcing completion of the review and a period of public consultation. This public consultation will collect views and advice on impact assessment, national standards, and statutory instruments. Development Control continues to lead at monthly meetings with counterparts in the West Yorkshire Flood Risk Management teams to share information and co-ordinate actions. [New approach to sustainable drainage set to reduce flood risk and clean up rivers - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/new-approach-to-sustainable-drainage-set-to-reduce-flood-risk-and-clean-up-rivers)
- The implementation of mandatory Biodiversity Net Gain (BNG) for Major applications was delayed from November 2023 to January 2024. There are two proposed elements to BNG – terrestrial units and river units. Where Leeds City Council can offer river credit units Flood Risk Management will likely play a role in the identification, costing, and delivery of the river units but the scope and extent of this role has yet to be agreed with colleagues in Planning & Sustainable Places. [Biodiversity and planning \(leeds.gov.uk\)](https://www.leeds.gov.uk/biodiversity-and-planning)

**6 Strategy and New Works team:** Manage and deliver a range of capital schemes reflecting key flood risks, right through from initial feasibility up to completion on site and handover to the FRM maintenance team. The list below gives a summary of our key schemes in progress along with an update to the overall programme in Appendix C.

**6.1 Recent Capital Works Completed :** In the past two years, three schemes were completed:

**6.1.1 Farnley Wood Beck FAS:** completed in 2023 this £1m scheme protects 15 properties at Old Close Cottingley from flooding (previous flooding events, most notably in 2005). The works completed in February 2023 have been to de culvert the watercourse between Old Road and Elland Road providing protection up to a 1 in 100-year flood event for these properties. The scheme is funded by local levy, FDGIA and S106 funding. We are also looking at a next phase (outlined below) with a Natural Flood Management scheme to provide the climate resilience to this work.

**6.1.2 Otley FAS:** Completed in 2022/23, this £4.43m project to reduce flood risk from the River Wharfe in Otley with the background covered by the Otley FAS webpage which includes a copy of the latest newsletter and public updates on the scheme. The effectiveness of the scheme recently proved itself in the Spring 2022 See Video [link](#) of the residents feedback and the scheme effectiveness after a

recent flooding event. The scheme was also recognised through an ICE Regional Award.

- 6.1.3 We also received additional Department for Education funding (£50k), as the scheme reduces the risk of flooding to the access route to two schools in Otley. This included the funding for some retrofitting of SuDS schemes (two schools) and provides the students with some education around flooding and what the scheme does to help reduce that risk. The educational work with Prince Henry's Grammar School took place on their global citizenship day (July 22) where LCC and EA colleagues inspired students about what they can do as citizens of the world to help reduce the risk of flooding and a green roof is to be installed at the school as part of the initiative. A presentation and site visit are planned with Ashfield Primary school and discussions of a green roof at both schools are progressing well, with implementation anticipated in 2024. This will provide an opportunity for the team to better understand the benefits of green roofs.
- 6.1.4 **Queen Street (St Aidan's):** In the late 2000's, three housing developments adjacent to St Aidan's Nature Reserve, discharged their surface water to an existing drainage ditch on the site/boundary of St Aidan's. In the more extreme storm events this ditch overtops and spills out across the adjacent footpath affecting a public right of way. The works connected the drainage ditch, to an existing culvert and are now completed with the final tree planting undertaken in March 20223.
- 6.1.5 **Leeds FAS Phase 2 £125,826,000:** Phase 2 of the Leeds Flood Alleviation Scheme is a two-step scheme, reducing flood risk along the river Aire, between Leeds station and Apperley Bridge, Bradford. This involves a combination of Natural Flood Management (NFM) and traditional engineering methods, providing protection to 1048 homes and 474 businesses. The scheme comprises of a flood storage area near Calverley, and flood walls in Apperley Bridge, Newlay and Kirkstall. The flood storage area is particularly central to work on Phase 2, as the construction of a flow control structure on the existing flood plain will mean that during high river levels, this can be activated to alleviate flooding being experienced further downstream. When this is complete, it will raise the level of protection for the entire FAS2 area to a one-in-200-year level. Once delivered in full (Summer 2024) , Phase 2 will also raise the standard of protection of Phase 1 (Leeds city centre), to a one-in-200-year level. All funding required has been secured, however there have been further cost increases (e.g., supply, war in Ukraine, inflation ) which are being closely monitored and under review.  
[commonplace site](#)

## Next Schemes under construction

- 6.2 **Sheepscar:** Sheepscar Beck is a historic water course that runs through the North of Leeds City Centre. The beck is heavily engineered with a high number of manmade structures. Due to the age of the stone and brickwork that makes up these structures, and the presence of invasive plant species, there are many points throughout the channel that need repair. Alongside the works needed within the channel, there are several brick and stone structures above and overlooking the beck that need to be repaired.
- 6.2.1 If the infrastructure in and around Sheepscar Beck were to fail, it would negatively impact on several hundred homes and businesses in the area and require significant financial investment and carbon cost to restore. This project aims to proactively carry out repair works to sustain the existing level of flood

risk by preventing future blockages. The scheme is due to start in April 2024 at an estimated cost of £1.5m and fully funded through the Environment Agency and WYCA funding. [Have Your Say Today - Sheepscar Beck Flood Alleviation Scheme - Leeds City Council Flood Resilience \(commonplace.is\)](#)

- 6.3 **Thorner:** There have been major flooding events in the past from Thorner Beck, particularly in 2007. The feasibility phase of the scheme is mostly complete having identified a suitable solution for a flood scheme. Which includes a flood storage upstream of the Westfield Lane Ford. Other Natural Flood Management measures in the catchment will also be considered. We are also working closely with the Yorkshire Dales Rivers Trust, who are currently delivering a project to improve water quality in the Thorner Beck catchment. This work includes tree-planting, work with farmers and local improvements to re-naturalise areas of the channel. [Have Your Say Today - Thorner Beck Flood Risk Study - Leeds City Council Flood Resilience \(commonplace.is\)](#)

### Potential Future Schemes and Studies

- 6.4 **Wortley Beck FAS:** There have been frequent flooding events from this beck with over 50 properties known to have been affected by internal flooding and 200 properties within Flood Zone 3. There was also recent flooding of the outer ring road in February 2021. Funding for this feasibility work has been secured from the Environment Agency through local levy and flood defence grant in aid for the development of a flood alleviation scheme. After a recent review of the hydraulic modelling study, an optioneering exercise is currently underway on eight options and is the largest scheme on the Leeds programme (aside from FAS2). An Exec Board report is due to be submitted in the Summer of 24 to keep Cllrs updated and a further engagement will be undertaken on the preferred option. Previous engagement and consultation included a seven-week consultation on the options (see below) and generated a good response with over 100 comments and 76 agreements. This feedback has been fed into the options appraisal and several newsletters sent out to local Counsellors and residents and a recent presentation update given in (November 2023) to local Cllrs in Pudsey and Wortley. For further information [Have Your Say Today - Wortley Beck Flood Risk Study - Leeds City Council Flood Resilience \(commonplace.is\)](#)
- 6.5 **Meanwood Beck FAS:** Another potentially very substantial scheme with further modelling and optioneering currently under review in Meanwood catchment, The work has considered over 20 sites/ options. Finding adequate flood storage whilst minimising environmental impacts is very challenging in this catchment. A shortlist of options is currently under assessment with a further engagement planned for the Summer of 2024. For further information see [Have Your Say Today - Meanwood Beck Flood Risk Study - Leeds City Council Flood Resilience \(commonplace.is\)](#)
- 6.6 **Wharfedale Flooded Communities Study:** A study is currently in progress to model the impact of flooding in settlements along the Wharfe including Collingham and to identify possible alleviation measures. The baseline model is complete and preliminary long list options have been put forward. A public drop-in event and online have been previously held. Attendance from the community was very good and supported by local ward members. This is along with regular meetings in Collingham and with Cllrs and local MP to keep residents updated of progress. A web page is now live showing the strategic options and an online survey has recently received a very positive response. [Have Your Say Today - Middle Wharfe](#)

[Catchment Flood Risk Study - Leeds City Council Flood Resilience \(commonplace.is\)](#)

- 6.7 **Potternewton Surface Water FAS:** The area has a history of surface water flooding particularly at the Newton Road and Newton Park Drive areas which have been flooded multiple times to significant depths. Past investigation and discussion with Yorkshire Water identified that the main sewer through Potternewton park is at under capacity and surcharges during minor flood events. A review of the options to reduce flood risk to properties within the Potternewton area as well the flooding of the highways and Park is currently underway with over 12 sites under review to examine how they could reduce surface water runoff. For further information - [Have Your Say Today - Potternewton Flood Risk Study - Leeds City Council Flood Resilience \(commonplace.is\)](#)
- 6.8 **Farnley Wood Beck Natural Flood Management (NFM) :** This scheme will deliver NFM work consisting of meandering, tree planting, leaky dams, and flood storage at areas along Farnley Wood Beck. This will complement the deculverting scheme protecting properties at Farnley Wood Beck and provide the climate resilience as well as reducing flows along Farnley Wood Beck and Hol Beck downstream where further properties are at risk. The NFM work will create and improve habitat in the catchment and sequester carbon through new planting. This is the second scheme which has submitted for NFM funding (£796k) from WYCA's Climate Emergency Action Plan funding.
- 6.9 **Lin Dyke Garforth and Kippax FAS:** Various scheme options have been drafted and costed. However, when assessed the cost benefit assessments, do not justify taking a scheme forward to Outline Business Case. The assessment is based on standard funding criteria for flood risk schemes. However further work has been commissioned, to identify next steps for the work and potential funding options. The Environment Agency have commissioned research to examine how areas could create more adaptable and resilient schemes and Garforth has been included as an area within that research.
- 6.10 **Property Flood Resilience (PFR) :** PFR is the term used to describe measures that help to reduce flood risk to people and property. Using PFR enables households and businesses to reduce the damage and stress caused by floods, making the process of recovery and reoccupation easier. In 2022 Leeds was included to be part of the ongoing Yorkshire Flood Resilience project (Defra funded) and undertook a PFR survey last year, and FLIP are now building on that work to identify which properties need further assessment.

**Other actions undertaken are.**

- Partnership working with other key agencies, notably the Environment Agency (EA), West Yorkshire Combined Authority (WYCA) and Yorkshire Water (YW)
- Close working with impacted residents, businesses, local councillors, and community flood groups to increase awareness of flood risk.
- Develop and maintain a comprehensive register of flood risk features and assets.
- Investigate flooding events – where necessary producing a Section 19 Report. Under section 19 of the Flood and Water Management Act 2010 Leeds City Council has a duty to investigate flooding when it is deemed necessary and appropriate. The report is a public statement of

the circumstances of a flood event and what parties have a role in managing the risks.

- Promote sustainable development – particularly regarding Sustainable urban Drainage Systems (SuDS)
- Support planning with determining the impact of development on flood risk and securing contributions from developers to support the delivery of flood risk management measures. New developments in the city give us a great opportunity to better manage flood water and reduce the risk of flooding to the city, we will see improvements from new developments rather than pressures due to the strength of our planning legislation.
- The operation and maintenance of Leeds Flood Alleviation Scheme Phase 1 (LFAS1) and preparation for the handover of LFAS2 later this year
- Reservoir maintenance and management as well as the co-ordination of Reservoirs Act compliance work (inspections, plans and reporting)
- Preparation for the introduction of Schedule 3 FWMA, which focuses on SuDS including liaison with other LLFAs and Defra, and development work to design new governance and assurance frameworks for the anticipated SuDS Approval Body.
- Natural Flood Management: The Strategy and New Works team have procured a Leeds wide NFM mapping tool which will assist identification of NFM potential. NFM supports flood risk management measures by 'slowing the flow' and provides wider adaptation and mitigation measures by delivering habitat restoration and wider green infrastructure activities with a mix of benefits including carbon sequestration, biodiversity enhancement, water quality improvements and urban cooling. We have two NFM schemes proposed which are outlined in the report.
- Climate Resilience and Adaptation are emerging but key themes of both the council's response to the climate emergency and the Yorkshire & Humber Climate Commissions Climate Action Plan. The council are playing a leading role in developing programmes and plans that will enable local authorities to develop their priorities and work streams that will lead to increased climate resilience across the city and wider region. This included a council wide workshop on severe weather and climate adaptation risk planning held in December, there will be work for all services across the council to do following this and this work is being facilitated by a task group from Flood Risk Management, Resilience & Emergencies, Sustainable Energy & Air Quality and Intelligence and Policy services.
- West Yorkshire Flood Innovation Programme (FLIP): Five lead Local Flood Authorities in West Yorkshire have launched an innovative programme to make the region more resilient to flooding and climate change. The Environment Agency and West Yorkshire Combined Authority are also partners, they have support from local stakeholders including academic partners, community-based groups, Third Sector organisations and Yorkshire Water. iCASP (at the University of Leeds) will also provide a scientific lead, ensuring the latest research is embedded into new techniques employed across the region and

provide an evaluation framework. The council takes a leading role in managing the programme and plays directly into ongoing projects looking at developing new tools to assess Property Flood Resilience measures, the use of Smart technologies linking in with colleagues in IDS and the implementation of Schedule 3 as detailed above. You can [watch this short animation](#) for more information about WY FLIP

## 7 Sources of Funding

7.1 The capital schemes for flood risk management utilise a range of funding to deliver the projects which in the main cover Grant in Aid (DEFRA), Local Levy, Section 106 monies, and West Yorkshire Combined Authority. There are also submissions to Yorkshire Water for schemes on their 5-year programme (PR24)

### Flood Risk Management Minor Works Capital Budget

7.2 In 2015 Leeds City Council Strategic Investment Board awarded £1m to deliver flood mitigation works that would not be eligible for other funding and to provide partnership funding as leverage to attract external contributions. In 2019/20 a further £1m was awarded.

7.3 In 2021 a further application has been approved as part of the recent capital funding review and this will provide a further £2.5 million over the next 5 years (£500,000 p.a.). So far £1.9m has been used in the Council's Capital Programme for Flood Risk projects, with the remaining £2.6m profiled for use in future financial years. This continues to prove an extremely beneficial way to maximise the council's ability to deliver schemes and has helped to attract substantial external funding that would not otherwise have been available. The ratio of LCC capital money is 1:7 and so for every £1 spent by the Council on flood risk schemes this generates an additional £7.

7.4 **Flood Defence Grant in Aid and Local Levy:** Flood Defence Grant in Aid (FDGiA) is provided by DEFRA and allocated locally by the Environment Agency and is subject to submission of an acceptable business case.

7.4.2 For 2022 LCC have been awarded £8.9m FDGiA. Significant amounts are: £7.8m for the Leeds Flood Alleviation Scheme Stage 2 (FAS2), £842,000 for Otley Flood Alleviation Scheme and £180,000 for the Wortley Beck Scheme. In 2023 we were awarded a total of £738,000 for 22/23. Significant amounts include £608,000 for Farnley Wood Beck FAS – Phase 1. Further funding has been awarded to FAS2 which is detailed in para 3.31.

7.4.3 Local Levy (LL) is raised from annual contributions from councils within the region and allocated through the Regional Flood and Coastal Committee (RFCC). Over the past 12 months LCC have been successful in a number of LL bids that support regional schemes that LCC are taking a leading role on.

- £175k LL bid (in addition to £95k from Grant in Aid (GiA) already secured) to develop a Legal Entity to attract green finance and secure the future of NFM work in the catchment (supporting Leeds FAS2), which is in its final stages of approval.
- £83k to lead the Yorkshire Natural Flood Management Community of Practice,
- £160k to manage the WY FLIP programme for 2 years.

- £100k towards the development of a Farnley Wood Beck NFM scheme

- 7.5 **West Yorkshire Combined Authority:** The Environment Agency and other Government agencies will continue to support the West Yorkshire Combined Authority (WYCA) in investigating and attracting future funding for the delivery of the flood risk programme. Although funding specifically for flood risk is not included in the devolved powers, the additional powers and financial flexibility allow for more investment decisions to be taken locally in line with local needs and opportunities. Mayoral Combined Authority (MCA) status allows for deeper engagement with government. The mayor can also act as figurehead to unlock other local contributions and private funding.
- 7.5.1 The Combined Authority and partners have outlined a programme of flood schemes with a significant impact that require additional funding to unlock their delivery. The programme requires £120m of additional investment and is being used as the basis of engagement with Government. If the additional funding is achieved, it can accelerate delivery of Flood Risk Management schemes including a dedicated Natural Flood Management Programme. It also includes funding for schemes within Leeds and will support delivery of the flood alleviation capital programme including phase 2 of the Leeds FAS. These schemes will protect properties and businesses within Leeds and safeguard existing jobs.
- 7.5.2 This programme will strengthen the region's response to the Climate Emergency by reducing carbon emissions and improve resilience to the effects of climate change. The work in the programme is being undertaken in a way that is minimising carbon emissions through changing construction practice, incorporating low carbon materials and using Natural Flood Management (NFM) alongside hard engineering. It will support delivery of our City Region strategies relating to energy and green and blue infrastructure. Delivery of this programme will allow the City Region to make further progress toward our objective of becoming a net contributor to the UK economy and achieving our ambition of becoming a net zero carbon economy by 2030.
- 7.5.3 The Combined Authority Capital Infrastructure Flood Programme lists 23 schemes across West Yorkshire (including 5 Leeds schemes) towards gap funding. FAS 2 has been supported in this process when the Government Department of Business Energy and Industrial Strategy (BEIS) committed to fund £12.565m towards gap funding. A Strategic Outline Case is under development to be submitted to the CA for approval (22<sup>nd</sup> June 2023) after which project level business cases can be submitted for approval as funding is confirmed. As well as the FAS2 funding, there is a Business Case undergoing the approval process of £650k towards the Sheepscar refurbishment.
- 7.5.4 To further support delivery of NFM In 2022 we have two current applications for funding into a new funding pot under the Climate Emergency Action Plan. Leeds has bid for two schemes under this funding for Farnley Wood Beck NFM (796k) and Thorner (779k - detailed above) both of which require business case approval.
- 7.6 **Section 106 agreements**
- 7.6.5 Section 106 of the Town and Country Planning Act includes enabling powers for legal agreements between the Local Planning Authority and developers to provide improvements to local services and infrastructure. In 2022 we utilised £300k from S106 monies available and enabled us to make a significant contribution towards

the £1m for the Farnley Wood Beck Scheme. We are currently exploring how we can make the most of this opportunity to link S106 monies with flood risk schemes.

- 8 **Yorkshire Water** : There are regular meetings with Yorkshire Water to develop our joint working potential. Yorkshire Water are currently undertaking their 5-year annual plan review (PR24) for investment in the West Yorkshire Region. FRM have submitted scheme proposals where there is a clear YW interest. We are currently awaiting feedback on these schemes and whether they have been included for funding.

## 9 Corporate Considerations

### 9.1 Equality and Diversity / Cohesion and Integration

- 9.1.6 It should be noted that by carrying out flood alleviation works the Council will be ensuring the safety of the local community and particularly those residents that have children and members of the families that have a disability, where these benefits will be greater – as currently these individuals may struggle to get to safety if flooding occurred. Included as Appendix 4.

### 9.2 Climate Emergency

- 9.2.1 The Council declared a Climate Emergency in March 2019, with the stated ambition of working towards a net zero carbon city by 2030. The Council has accepted that very urgent action is required to make our contribution to containing global temperature rises within 1.5C. Beyond this limit, there is a strong scientific consensus that there will be catastrophic consequences for both humanity and the natural world. Since the declaration the Council has adopted a new way of working, changing its own structures and governance processes to incorporate the new climate emergency priority. Delivery of the LFRMS will help to reduce the impacts of flooding and therefore deliver managed adaptation to the future impacts of climate change. In delivering the capital programme for flood alleviation the carbon impact of these schemes will be considered to promote lower carbon solutions.

- 9.2.2 In the annual update to Executive Board in July 2023 there will be much greater emphasis on climate resilience and adaptation, LCC now not only forms a key part of the Leeds Climate Commission but also to the more recently formed Yorkshire & Humber Climate Commission including being members of the Climate Resilience and Adaptation Panel with a view to planning a response to the Y&HCC Climate Action Plan launched in late 2021 around COP26.

## 10 Conclusions

- 10.1 Flood Risk is a key threat to the wellbeing of the residents across Leeds and to ensure action is taken it is important that Council continues a proactive approach to mitigating the impact of flooding. Moreover, throughout 2022 and looking to the future the broader focus of climate resilience and adaptation must align very closely with flood risk.

- 10.2 There has been good progress in the delivery of projects identified in the Strategy in 2023. The current 6-year programme 2021-27 will deliver more than 10 schemes to reduce the risk of flooding by investing £20m in the City's flood and climate resilience infrastructure. This would be in addition to the investment from Leeds FAS2.

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## APPENDIX C - Leeds Local Flood Risk Management Strategy - Monitoring Indicators

REF	Monitoring Indicator	Evidence/Comments on Progress	Date
1	The number of measures in the 'List of Measures' which have been completed?	Two Schemes were completed from the List of Measures were completed in 2022: S29 - Queen Street Culvert completed, (£44k) S16 - Farnley Wood Beck deculverting scheme ( £1.017m)	2022/23
2	Are there active measures in the 'List of Measures' which cover each of the six 'Objectives for managing flood risk'?	Yes. These can be found under the Policies Section of this Appendix.	On-Going
3	Improving engagement on flood risk - How many public engagement events have taken place? School events, flood fairs, flood action group meetings.	During the 2022-2023 financial year the following engagements have included:  * Over 30 Presentations to Prince Henry School at Otley in July, for a site visit to Otley FAS. * Two Presentations to Ashfield Primary on Otley FAS * Online Common Place Consultation on Wortley FAS Supported the Environment Agency's Flood Action Week & linked it to FAS1 video * Worked with local residents on Otley resident reaction video * FRM have attended Flood Support Group meetings including 2 Garforth Support meetings * Two Newsletters on updates and engagement updates given to Wortley/ Meanwood. * Tree planting FAS2 volunteer event in Feb 2023	2022/23
4	The number of new developments where SuDS have been installed? Include SuDS, green corridors, rainwater harvesting, green roofs, land management (tree planting).	There is no information on the installation of SUD's in NEW Developments. FRM have a database showing that within the LCC administrative boundary there are: 99 Swales; 34 Filter Drains and 156 French (Porous) Drains.	2022/23
5	Are property level flood protection (PLP) schemes reducing flood risk – Number of properties where PLP schemes have been installed and operated successfully in a flood event?	Yes. As part of the Property Flood Resilience Pathfinder Project, a proportion of those installed have been surveyed in 2022. A further survey of properties with PLP in Otley are to be surveyed in 2023.	2022/23
6	Number of Leeds City Council staff engaged in flood risk management activities?	FRM structure includes 36 posts (being actively recruited to) and 5 posts in FAS2	2023
7	Reliability of public transport – Number of Metro bus and train routes disrupted by flooding/drainage problems?	Flooding and disruption occurs along Barnsdale Road, Allerton Bywater (Storm Franklin 20th February 2022) . This affects 6 regular Bus Services and also School Bus routes. Other major infrastructure impacted by flooding is the Ring Road at Wortley, Newton Road at Potternewton . FAS schemes protecting infrastrucure includes, Farnley Lane flooding at Otley is now protected by the Otley FAS scheme) and FAS2 will be protecting Kirkstall Road. We gather incident data about flooding affecting the highway network.	2022/23
8	Is the LFRMS consistent with the plans and actions of partner organisations? Review and incorporate relevant actions from the Aire and Ouse CFMP's in the 'List of Measures'?	Yes. FRM assisted the Environment Agency to in update to Flood Risk Management Plans in 2022. CFMPs have now been replaced by River Basin Management Plans. This will be reflected in the next update of the LFRMS planned for 2024.	2022/23

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ID	Priority	Scheduled Review/Completion Date	Measure	Location (if applicable)	Category	Relevant Objective from LFRMS	Progress/Comments (reference other sources of information)	Benefits/ Outcome	Costs/ Resource Implications	Lead Organisation	Support Organisation	Measure Owner
<b>POLICIES</b>												
P3	HIGH	On-going	Develop register of structures and features which are likely to have a significant effect on flood risk.	City wide	4. Asset management and maintenance	6. Improve understanding of local flood risk and seek to decrease local flood risk through implementation of affordable, high quality measures to alleviate flooding where practicable.	This is a requirement under Section 21 of the Flood and Water Management Act (2010). LCC are progressing this and have purchased new software "FloodVu" which will assist with the recording of asset information. This software links directly with the LCC's	Improve knowledge of existing infrastructure and conditions and promote a sustainable approach to asset management and maintenance.	Staff resource	Leeds City Council	Environment Agency & Yorkshire Water Services	LCC Flood Risk Management
P4	HIGH	On-going	Identify locations where culverts can be removed or improved through redevelopment	City wide	2. Spatial planning and development control	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	This measure is listed in the Aire Catchment Flood Management Plan	Improve knowledge of existing infrastructure and conditions and promote a sustainable approach to asset management and maintenance. Redevelopment plans will include consideration of the removal of problem culverts	Staff resource	Environment Agency	Leeds City Council	Environment Agency
P5	HIGH	On-going	Watercourse and beck condition surveys	City wide	4. Asset management and maintenance	6. Improve understanding of local flood risk and seek to decrease local flood risk through implementation of affordable, high quality measures to alleviate flooding where practicable.	Ongoing annual survey?	Improve knowledge of existing infrastructure and conditions and promote a sustainable approach to asset management and maintenance.	Staff resource	Leeds City Council	Environment Agency	LCC Flood Risk Management
P6	HIGH	On-going	Improve communications, engagement and coordination of activities with internal and external partners (including RMA): Leeds City Council Flood Risk Management Group; Technical Standards and Guidance; Planning and Flood Risk; Yorkshire and Humber Learning Alliance, Metro (transport network).	-	1. Flood awareness, response and recovery	1. Improve co-operation between LLFA and other RMAs, in terms of procedure, to meet the requirements of new legislation and achieve holistic (catchment wide) solutions to identified risks and problems – emergency planning.	Engagement and consultation is under way as part of LFRMS. Regular meetings required to share knowledge, review policy, strategy documents, list of measures...etc.	Formalise and improve cooperation between RMAs on FRM	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management
P7	MEDIUM	On-going	Pump operation - carbon reduction	City wide	4. Asset management and maintenance	2. Promote sustainable flood risk management through: WFD compliance, climate change adaptation (UKCIP), land management, habitat protection and creation;	TBC	Reduce carbon emissions and improve energy efficiency	Staff resource	Leeds City Council	Environment Agency	LCC Flood Risk Management
P8	MEDIUM	On-going	Implement SuDS through Planning	City wide	2. Spatial planning and development control	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	This has replaced the SuDS Regulations, under Flood & Water Management Act 2010, that would have set up SABs.	Development control - ensure new drainage systems incorporate SuDS measures to reduce runoff rates and therefore flood risk.	Staff resource	Leeds City Council	Environment Agency	LCC Forward Planning & Implementation
P9	MEDIUM	Annually	Provide regular feedback to senior officers and elected members on FRM progress: working groups, strategies, list of measures...etc - Director of City Development (quarterly) - City Development (annually) - Other key officers as needs arise - City Development Scrutiny Board (annually) - All Area Committees (two-yearly)	N/A	1. Flood awareness, response and recovery	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	TBC	Ensures that there is ownership and awareness of on-going FRM work at appropriate levels of accountability.	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management
P10	MEDIUM	Annually	Review and update Emergency Handbook, Generic Flooding Plan, Community Flood Action Plans, West Yorkshire Major Flood Incident Plan, Reservoir Emergency Plan	N/A	1. Flood awareness, response and recovery	1. Improve co-operation between LLFA and other RMAs, in terms of procedure, to meet the requirements of new legislation and achieve holistic (catchment wide) solutions to identified risks and problems – emergency planning.	Plans need to be updated with latest contact details, departments and processes. This measure is listed in the Aire CFMP for the Leeds Policy Unit.	Ensures plans for coordination of FRM activities in the event of a flood are up to date and consequences and disruption of flooding are minimised.	Staff resource	Leeds City Council	Environment Agency & West Yorkshire Authorities	Peacetime Emergency Planning Unit
P11	MEDIUM	On-going	Engagement and communication with public on FRM issues - Wider public information campaigns for at-risk households drawing attention to useful resources; - Engage with local flood action groups.	City Wide	1. Flood awareness, response and recovery	5. Increase community awareness of flood risk and the work of the LLFA in managing this risk: engage with local communities and involve them in decision making – localism agenda;	Engagement and consultation continues and is being refreshed.	Involve communities in decisions - localism agenda	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management & Peacetime Emergency Planning Unit
P12	MEDIUM	On-going	Leeds City Council to increase their flood risk management capacity, knowledge and skills (as Lead Local Flood Authority) in order to deliver their new responsibilities as conferred under the Flood and Water Management Act 2010.	N/A	1. Flood awareness, response and recovery	4. Increase internal skills and ultimately capacity for flood risk management;	In accordance with Defra guidance on capacity building. Improve understanding of flood risk in the city and expertise to better manage consequences.	Increases local authority capacity and skills in flood risk management	Staff resource	Leeds City Council	Environment Agency	LCC Flood Risk Management
P13	MEDIUM	On-going	Significantly increase the percentage take-up of properties registered for flood warnings in flood warning areas across city. City wide campaign as current take-up is low.	City wide	1. Flood awareness, response and recovery	5. Increase community awareness of flood risk and the work of the LLFA in managing this risk: engage with local communities and involve them in decision making – localism agenda;	This measure is listed in the Aire CFMP for the Leeds Policy Unit - to be progressed by 2030.	The consequences of flooding will be reduced through the increased potential for effective action to take place following receipt of a flood warning	Staff resource	Environment Agency	Leeds City Council	Environment Agency
P14	LOW	2024	Review Local Flood Risk Management Strategy (LFRMS)	N/A	2. Spatial planning and development control	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	The CFMP will be reviewed once every 5 years. This will link the LFRMS review with the cycles for reviewing the FRMA as outlined in the FRM. The first review is scheduled to take place in 2024.	Ensures LFRMS is updated with relevant information to reflect any changes in FRM	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management
P15	LOW	Annually	Review LFRMS List of Measures	N/A	2. Spatial planning and development control	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	Will assess progress with List of Measures and ensure continuous improvement. First review scheduled for 1	Will assess progress with List of Measures and ensure continuous improvement	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management
P16	LOW	Annually	Review Council Policy on FRM - e.g 'Maintaining Water Resources and Responding to Flood Incidents' to ensure that it conforms to the requirements of the FWMA that Local authorities should lead on the management of local flood risk, with the support of the relevant organisations.	N/A	2. Spatial planning and development control	1. Improve co-operation between LLFA and other RMAs, in terms of procedure, to meet the requirements of new legislation and achieve holistic (catchment wide) solutions to identified risks and problems – emergency planning;	The LFRMS is scrutinised annually, including adherence to the FWMA.	Ensures clarity around Council's legal roles and responsibilities and that work programmes have a sound foundation.	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management
P17	LOW	On-going	Maintain internet and intranet web pages to provide comprehensive information to all stakeholders on: - The sources of flooding and who is responsible for what; - How to prepare for flooding emergencies; - What to do when flooding occurs and who to report this to; - How flood risk is treated within the planning. Promote the use of sustainable design principles in all future developments to ensure that the risk of flooding and climate change are fully taken into account e.g. - Promoting use of SuDS - Incorporating policies and recommendations within Leeds LDF - Developer contributions in Core Strategy - Biodiversity and local amenity	N/A	1. Flood awareness, response and recovery	5. Increase community awareness of flood risk and the work of the LLFA in managing this risk: engage with local communities and involve them in decision making – localism agenda;	Internet and intranet pages in place and launched. Further feedback required from services on on-going basis.	Ensures that there is a single consistent source of information on flood risk management.	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management
P18	LOW	On-going	Promote the use of sustainable design principles in all future developments to ensure that the risk of flooding and climate change are fully taken into account e.g. - Promoting use of SuDS - Incorporating policies and recommendations within Leeds LDF - Developer contributions in Core Strategy - Biodiversity and local amenity	City wide	2. Spatial planning and development control	2. Promote sustainable flood risk management through: WFD compliance, climate change adaptation (UKCIP), land management, habitat protection and creation;	This measure is listed in the Aire Catchment Flood Management Plan	By embedding the requirements for SuDS and urban design principles within local policy we will be able to improve the management of the water environment in all new developments.	Staff resource	Leeds City Council	Environment Agency & Yorkshire Water Services	LCC Forward Planning and Implementation & Sustainable Development Unit
P19	LOW	Six Yearly	Review and update as appropriate the Strategic Flood Risk Assessment (SFRA).	N/A	2. Spatial planning and development control	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	Reviewed in 2021	Helps ensure there is a more complete understanding of flood risk at a high-level which takes account of YWS's network and other lessons learned or gaps.	Staff resource	Environment Agency	Leeds City Council	LCC Flood Risk Management & Forward Planning Unit
<b>COMPLETED POLICIES</b>												
P20	Completed	Oct 2012	Undertake Strategic Environmental Assessment	N/A	2. Spatial planning and dev	2. Promote sustainable flood risk management through: WFD compliance, climate change adaptation (UKCIP), land management, habitat protection and creation;	This is part of process of producing LFRMS. SEA Workshop planned for July 2012 to appraise the objectives and measures in the LFRMS - see 19	Will ensure LFRMS is sustainable and workable and also secure buy in from stakeholders	Staff resource	Leeds City Council	Environment Agency	LCC Sustainable Development Unit & Flood Risk Management
P21	Completed	November 2018	Publish Local Flood Risk Management Strategy	N/A	2. Spatial planning and development control	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	Draft strategy currently being developed in parallel with an SEA.	Will raise awareness of the LFRMS and FRM issues in the city	Staff resource	Leeds City Council	Environment Agency	LCC Flood Risk Management
P22	Completed	November 2020	Publish LFRMS List of Measures	N/A	2. Spatial planning and development control	3. Develop a consistent, affordable and sustainable approach to planning and investment in flood risk management: land allocation, SuDS, SABs;	List of measures currently being developed.	Will assess progress with List of Measures and ensure continuous improvement	Staff resource	Leeds City Council	Internal LCC departments and external stakeholders	LCC Flood Risk Management

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# APPENDIX C - Leeds Local Flood Risk Management Strategy - List of Measures (Updated October 2020)

ID	Priority/ Current Phase	Scheduled phase Completion Date	Measure	Whole Scheme Estimated Cost	Location (if applicable)	Progress/Comments (reference other sources of information)
<b>SCHEMES &amp; FEASIBILITY STUDIES</b>						
S37	<b>HIGH - Construction</b>	<b>2024</b>	<b>Leeds Flood Alleviation Scheme Phase 2, River Aire City Centre to Upper Catchment</b>	£125.8m	River Aire - City Centre to Upper Catchment	Phase 2 of the Leeds FAS, looking at solutions across the whole catchment upstream of Leeds that will reduce flood risk to the city along the river Aire. Modelling and feasibility work largely complete, Outline Business Case submitted to the EA and Treasury Jan 2018. Moving in to more detailed design in 2018 with construction starting late 2018 early 2019, advanced works have taken place on some 'quick win' items and works at Stourton about to start as is a programme of advanced maintenance and stewardship.
S16	<b>HIGH - Construction completed</b>	<b>2023</b>	<b>Farnley Wood Beck Flood Alleviation Scheme</b>	£1.017m	Cottingley	Flood risk to residential areas, developer contribution secured of 300k. Scheme progressed in 2022/23 to remove culvert and increase capacity, protecting 15 properties. <b>Completed February 2023</b>
S29	<b>HIGH - Construction completed</b>	<b>2022/23</b>	<b>Queen Street Culvert</b>	44k	Allerton Bywater	In extreme storm a culvert overtops and spills out across the public right of way next to St Aidens Nature Reserve. Section 106 Agreement monies utilised. Growbags instead of a concrete headwall which will green up and naturalise over time and reduced the cost and the carbon footprint of the scheme. Some tree planting in March 2023 completed the scheme.
S18	<b>HIGH - Design/ Construction</b>	<b>2024/25</b>	<b>Sheepscar Beck Asset Remediation Work</b>	£1.5m	Sheepscar	Scheme is to carry out repair works to assets along Sheepscar Beck through the city centre and provide protection of business. Scoping and design of required refurbishment underway with tender and onsite in April 2024.
S10	<b>HIGH - Design/ Construction</b>	<b>2025</b>	<b>Thorner Beck Flood Alleviation Scheme and Natural Flood Management</b>	£1.220m	Thorner	Flood risk from Thorner Beck. Funding secured for a study to develop flood storage upstream of the village
S17	<b>HIGH - Optioneering</b>	<b>2023</b>	<b>Wortley Beck Flood Alleviation Scheme</b>	£10-20m	Wortley Beck	Flooding to residential areas and outer ring road. Work in partnership with the EA to develop a detailed flood alleviation scheme that integrates with all sources of flooding. Engagement planned for Summer 2024 and Business case expected 2024/25.
S22	<b>HIGH - Optioneering</b>	<b>2023</b>	<b>Meanwood Beck Flood Alleviation Scheme</b>	£tbc (4.465)m	Meanwood Beck	Flood risk from Meanwood Beck to residential properties and businesses. Local levy funding secured to carry out investigation into options for a flood alleviation scheme here. Investigation has identified potential flood storage areas for further investigation and initial design.

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Manager: Jonathan Moxon

Author:

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**APPENDIX C - Leeds Local Flood Risk Management Strategy - List of Measures (Updated October 2020)**

S39	<b>HIGH - Feasibility</b>	<b>2023</b>	<b>Wharfedale Flooded Communities Feasibility Study</b>	£322k	Collingham, Linton, Wetherby, Thorp Arch	Linked to wider catchment partnership work with the Environment Agency, further modelling work currently being assessed, building on the public engagement undertaken in Summer 2021.
S12	<b>HIGH - Feasibility</b>	<b>2032</b>	<b>Potternewton Surface Water Flood Alleviation Scheme</b>	£tbck	Potternewton	Surface water flooding to residential properties, Potternewton Park and Newton Road. Funding secured for study here, exploring other funding options including Yorkshire Water to undertake a scheme.
S31	<b>MEDIUM - Feasibility</b>	<b>2023</b>	<b>Lin Dyke Catchment Assessment - Upper and Middle catchments</b>	£370k	Garforth & Kippax	Continuation of work included in Section 19 Report, regarding flooding of the SE Leeds area in August 2014 and 2015. Further modeling undertaken and results under evaluation. Funding options have been explored but as yet no economically viable scheme has been identified. However we continue to explore options.
S30	<b>MEDIUM - Feasibility</b>	<b>2023</b>	<b>Wyke Beck Catchment Assessment Phase 2</b>	£680k	Communities along Wyke Beck	Continuation of work carried out by both LCC & EA. This has now progressed in to a catchment wide approach. Exploring resourcing options to take this forward.
S11	<b>LOW - Pre Outline Business Case</b>	<b>2023</b>	<b>Guiseley Surface Water Flood Alleviation Scheme</b>	£250k	Guiseley	Surface water flooding to properties in Guiseley. Levy funding secured to support ongoing study into flood risk and options to address this undertaken. CCTV survey has been undertaken and is currently being assessed for options.
Page 21	<b>Ongoing</b>	<b>-</b>	<b>LCC Significant Maintenance</b>		Across the District	Continuation of regular maintenance of Watercourses and Hot-Spots

Manager: Jonathan Moxon

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**APPENDIX C - Leeds Local Flood Risk Management Strategy - List of Measures (Updated October 2020)**

<b>COMPLETED SCHEMES AND FEASIBILITY STUDIES - SINCE 2011</b>						
S6	Completed	2021	Mickletown (Pit Lane) Flood Embankment	£1.100k	Mickletown	Scheme completed January 2021
S38	Completed	2021	Otley Flood Alleviation Scheme	£4.45m	Otley	Detailed design completed, planning permission granted and conditions discharged. Funding has been confirmed and work is planned to start on site in March 2021. Linked to wider catchment partnership work and Wharfedale Flooded communities study
S15	Completed	2020	Killingbeck Meadows Flood Alleviation Scheme	£3m	Halton Moor	Flooding to residential and commercial areas from Wyke Beck. Accelerated scheme due to combining the benefits of releasing development sites (11 housing sites and land within the Enterprise Zone and providing green infrastructure improvements to a Local Nature reserve as well as providing flood risk reduction, the completed scheme will become a registered flood storage area under the Reservoirs Act. This forms part of a joint Wyke Beck Programme delivering housing growth from Brownfield land and Local Nature resrve and green space improvements.
S32	Completed	2020	Hawthorn Terrace Flood Alleviation Scheme	£100k	West Garforth	Initial scheme completed, but further defects with existing assets and connected infrastructure identified so further works needed and being designed
S20	Superceded	2020	Investigate the interaction between the Leeds and Liverpool Canal and the River Aire.	£10k	River Aire and Liverpool Canal	This study should identify the potential for managing this interaction to ensure that flood risk is managed effectively. This measure is listed in the Aire Aire Catchment Flood Risk Management Plan for the Leeds Policy Unit - to be progressed by 2030. - this has now been included in the scope of
S31	Completed	2019	Lin Dyke Catchment Assessment - Upper and Middle catchments	£1.25m	Garforth & Kippax	Continuation of work included in Section 19 Report, regarding flooding of the SE Leeds area in August 2014 and 2015, design works are contuning to be progressed as schemes are identified
S14	Completed	2017	Carry out flood warning feasibility studies for Wortley Beck and Meanwood Beck and implement findings.	£10k	Wortley Beck and Meanwood Beck	This measure is listed in the Aire Catchment Flood Risk Management Plan
S3	Completed	2017	Leeds Flood Alleviation Scheme Phase 1, River Aire City Centre	£50.6m	River Aire - City Centre	Scheme Completed
S8	Completed	2017	Cotton Mill Beck Culvert, Valley Road	N/A	Morley	Scheme passed to network rail
S35	Completed	2018	Westfields, Allerton Bywater	£502K	Allerton Bywater	Scheme Completed

Manager: Jonathan Moxon

Author:

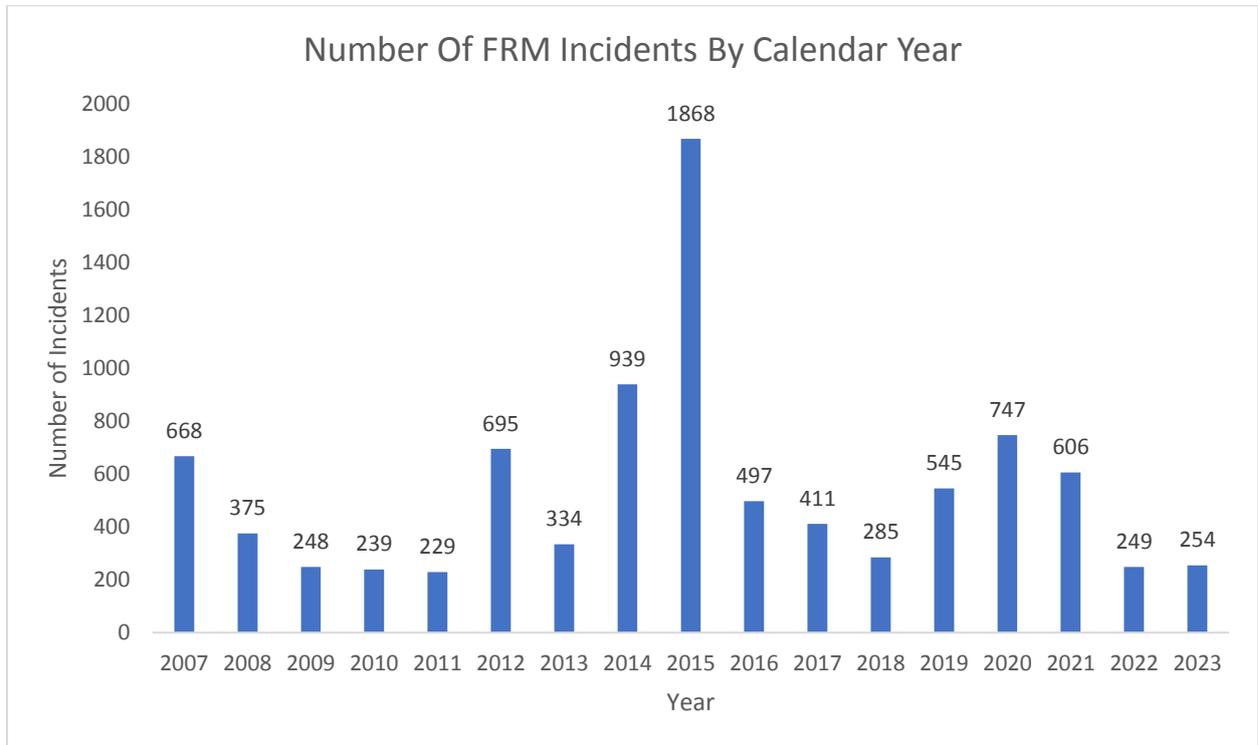
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**APPENDIX C - Leeds Local Flood Risk Management Strategy - List of Measures (Updated October 2020)**

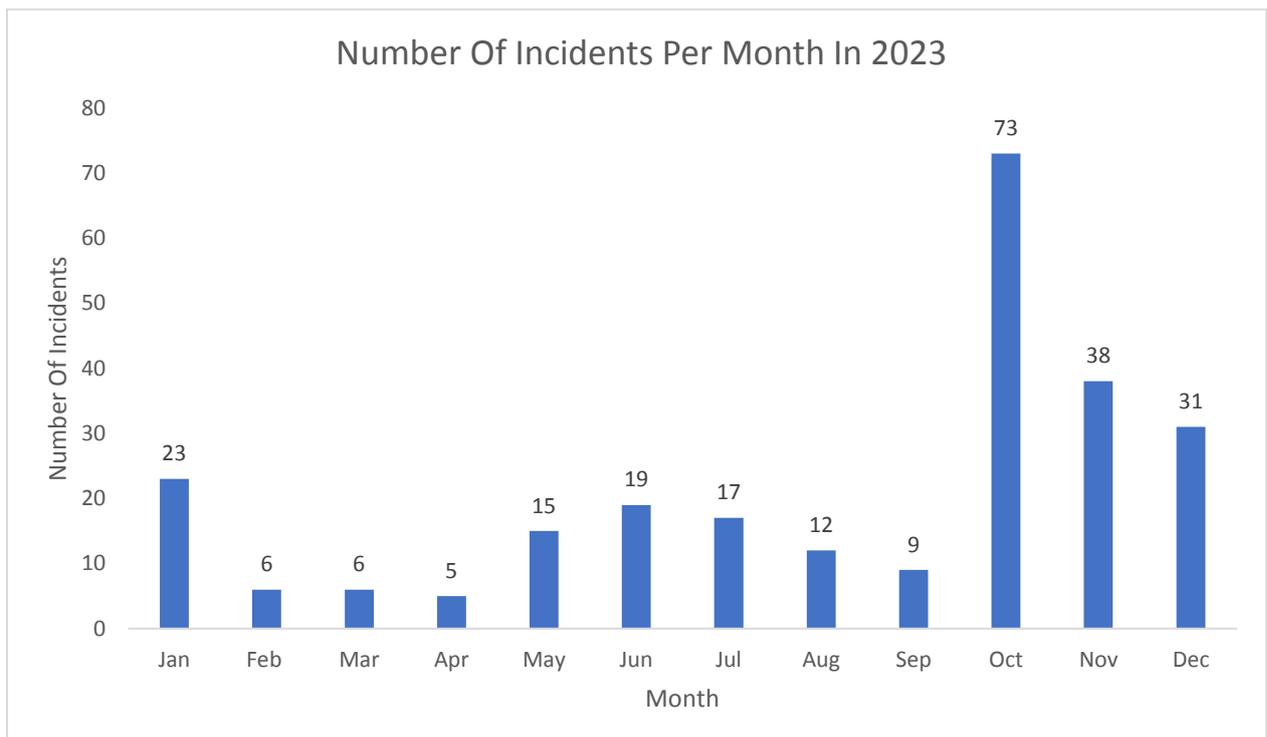
S34	Completed	2017	Glebelands Recreation Ground	£100k	Garforth	Scheme Completed
S36	Completed	2017	Barley Hill Recreation Ground (Phase 2)	£100k	West Garforth	Scheme Completed
S2	Completed	2017	Ramsden Street, Kippax, Flood Alleviation Scheme - (Local Levy & FDGiA)	£305k	Kippax	Scheme Completed
S1	Completed	2014	Lowther Road, Garforth - Culvert Improvements	£220k	Garforth	Scheme Completed
S4	Completed	2014	Wellhouse Drive Flood Alleviation Scheme	£50k	Gledhow	Scheme Completed
S7	Completed	2014	Culvert Headwall Repair Scheme - (Local Levy)	£50k	Otley	Scheme Completed
S28	Completed	2013	Oakdene, Watercourse Improvements	£20k	Swillington	Scheme Completed
S27	Completed	2012	Barley Hill Recreation Ground - (Local Levy)	£75k	West Garforth	Scheme Completed
S22	Completed	2011	Flood Alleviation Scheme - Leeds Road (Allerton Bywater) pumping station (local levy)	£30k	Allerton Bywater	Scheme Completed
S23	Completed	2011	Newton Road property protection and resilience scheme	£20k	Newton Road, Potternewton	Scheme Installed
S24	Completed	2011	Lower Wortley - property protection and resilience scheme	£20k	Lower Wortley	Scheme Installed
S25	Completed	2011	Church Lane, Bardsey - property protection and resilience scheme	£20k	Bardsey	Scheme Installed
S26	Completed	2011	Dean Park Drive, Drighlington - property protection and resilience scheme	£20k	Drighlington	Scheme Installed

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### **Appendix 3: FRM Incidents 2007 – 2023**

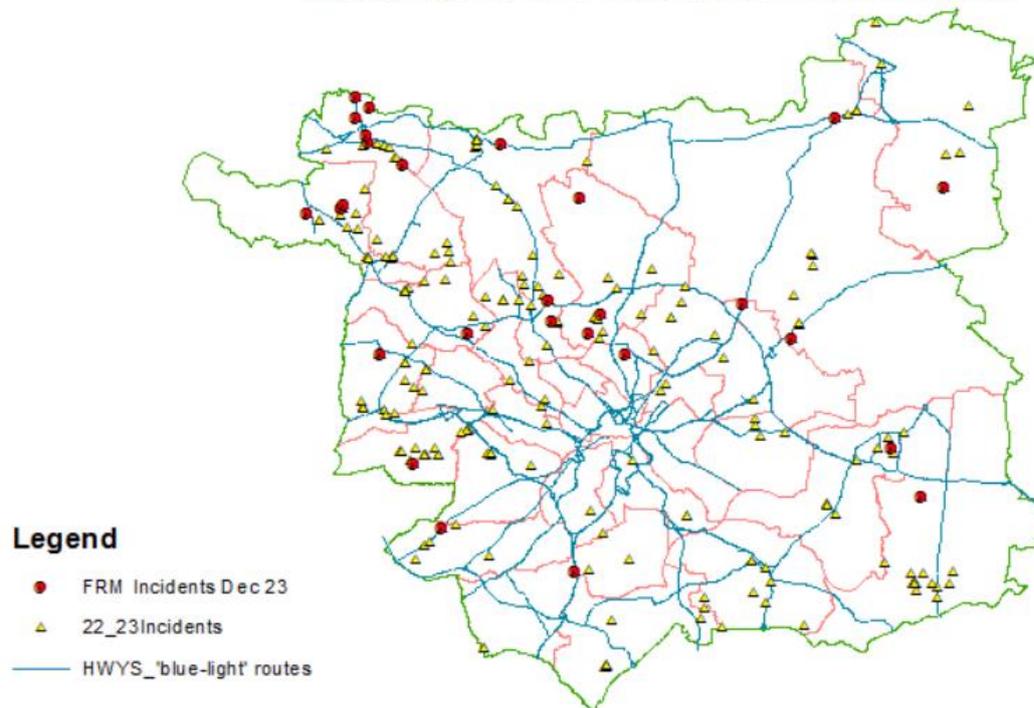


### **For the year 2023:**



## Location of Reported Incidents

Incidents Reported To FRM December 2022 To December 2023



# Equality, Diversity, Cohesion and Integration Screening



As a public authority we need to ensure that all our strategies, policies, service and functions, both current and proposed have given proper consideration to equality, diversity, cohesion and integration.

A **screening** process can help judge relevance and provides a record of both the **process** and **decision**. Screening should be a short, sharp exercise that determines relevance for all new and revised strategies, policies, services and functions.

Completed at the earliest opportunity it will help to determine:

- the relevance of proposals and decisions to equality, diversity, cohesion and integration.
- whether or not equality, diversity, cohesion and integration is being or has already been considered, and
- whether or not it is necessary to carry out an impact assessment.

<b>Directorate: City Development</b>	<b>Service area: Flood Risk Management</b>
<b>Lead person: Jonathan Moxon</b>	<b>Contact number: 0113 37 85529</b>

## 1. Title: Local Flood Risk Management Strategy Scrutiny Review 2023

Is this a:

Strategy / Policy

Service / Function

Other

If other, please specify

## 2. Please provide a brief description of what you are screening

The Annual City Development Scrutiny Panel (April 2023) review of progress against the councils Local Flood Risk Management Strategy.

### 3. Relevance to equality, diversity, cohesion and integration

All the council's strategies and policies, service and functions affect service users, employees or the wider community – city wide or more local. These will also have a greater or lesser relevance to equality, diversity, cohesion and integration.

The following questions will help you to identify how relevant your proposals are.

When considering these questions think about age, carers, disability, gender reassignment, race, religion or belief, sex, sexual orientation. Also those areas that impact on or relate to equality: tackling poverty and improving health and well-being.

Questions	Yes	No
Is there an existing or likely differential impact for the different equality characteristics?		X
Have there been or likely to be any public concerns about the policy or proposal?		X
Could the proposal affect how our services, commissioning or procurement activities are organised, provided, located and by whom?		X
Could the proposal affect our workforce or employment practices?		X
Does the proposal involve or will it have an impact on <ul style="list-style-type: none"><li>• Eliminating unlawful discrimination, victimisation and harassment</li><li>• Advancing equality of opportunity</li><li>• Fostering good relations</li></ul>		X

If you have answered **no** to the questions above please complete **sections 6 and 7**

If you have answered **yes** to any of the above and;

- Believe you have already considered the impact on equality, diversity, cohesion and integration within your proposal please go to **section 4**.
- Are not already considering the impact on equality, diversity, cohesion and integration within your proposal please go to **section 5**.

#### 4. Considering the impact on equality, diversity, cohesion and integration

If you can demonstrate you have considered how your proposals impact on equality, diversity, cohesion and integration you have carried out an impact assessment.

Please provide specific details for all three areas below (use the prompts for guidance).

- **How have you considered equality, diversity, cohesion and integration?** (think about the scope of the proposal, who is likely to be affected, equality related information, gaps in information and plans to address, consultation and engagement activities (taken place or planned) with those likely to be affected)

- **Key findings** (think about any potential positive and negative impact on different equality characteristics, potential to promote strong and positive relationships between groups, potential to bring groups/communities into increased contact with each other, perception that the proposal could benefit one group at the expense of another)

- **Actions** (think about how you will promote positive impact and remove/ reduce negative impact)

**5. If you are **not** already considering the impact on equality, diversity, cohesion and integration you **will need to carry out an impact assessment.****

Date to scope and plan your impact assessment:

Date to complete your impact assessment

Lead person for your impact assessment  
(Include name and job title)

**6. Governance, ownership and approval**

Please state here who has approved the actions and outcomes of the screening

Name	Job title	Date
Gary Bartlett	Chief Officer Highways & Transportation	
<b>Date screening completed</b>		February 2024

**7. Publishing**

Though **all** key decisions are required to give due regard to equality the council **only** publishes those related to **Executive Board, Full Council, Key Delegated Decisions or a Significant Operational Decision.**

A copy of this equality screening should be attached as an appendix to the decision making report:

- Governance Services will publish those relating to Executive Board and Full Council.
- The appropriate directorate will publish those relating to Delegated Decisions and Significant Operational Decisions.
- A copy of all other equality screenings that are not to be published should be sent to [equalityteam@leeds.gov.uk](mailto:equalityteam@leeds.gov.uk) for record.

Complete the appropriate section below with the date the report and attached screening was sent:

For Executive Board or Full Council – sent to <b>Governance Services</b>	Date sent: February 2024
For Delegated Decisions or Significant Operational Decisions – sent to appropriate <b>Directorate</b>	Date sent: February 2024
All other decisions – sent to <a href="mailto:equalityteam@leeds.gov.uk">equalityteam@leeds.gov.uk</a>	Date sent: February 2024