

North Lanarkshire Local Development Plan 2

Survey Paper - Evidence Report

Policy 22 - Flood risk and water management

Purpose of Topic Papers

We are currently identifying and assessing the evidence available for each policy topic area identified in NPF4 and the Scottish Government's local development planning guidance.

We will issue online surveys for each topic, or group of topics, outlining:

- the relevant information and datasets we have identified so far
- our assessment of the evidence gathered, based on the identified information and datasets
- any potential connections to other topic areas
- potential implications for site selection at the Proposed Plan stage, and
- potential implications for the Local Development Plan

This will be an early opportunity for you to confirm if we have identified the appropriate evidence, provide any other evidence you have or would like us to consider, and offer your views on our initial considerations of the use and implications of the available evidence.

We will then consider the responses to the surveys and what they mean for our evidence base. This will help inform the preparation of our Evidence Report later this year.

Some of the information gathered are particularly technical on a specific topic and may not be relevant to everyone. We welcome comments on all or some of the information published. There will be more opportunities to comment as we progress through the LDP preparation process.

1. Introduction

- 1.1 The Planning (Scotland) Act 2019 requires Planning Authorities to prepare an Evidence Report that contains sufficient information to enable the planning authority to prepare a Local Development Plan.
- 1.2 The Evidence Report has two main functions. The first is that it should set out the evidence that will be used to inform and prepare a new Local Development Plan. The second is for local authorities to identify the issues they think based on the evidence presented that need to be addressed by the new Local Development Plan, and for other interested parties and stakeholders to express what they think are the issues.
- 1.3 There are specific matters that the Evidence Report must cover; these are set out in the Planning (Scotland) Act 2019
 - the principal physical, cultural, economic, social, built heritage and environmental characteristics of the district;
 - the principal purposes for which the land is used;
 - the size, composition, health, and distribution of the population of the district;

- the housing needs of the population of the area, including, in particular, the needs of persons undertaking further and higher education, older people and disabled people;
- the availability of land in the district for housing, including for older people and disabled people;
- the desirability of allocating land for the purposes of resettlement;
- the health needs of the population of the district and the likely effects of development and use of land on those health needs;
- the education needs of the population of the district and the likely effects of development and use of land on those education needs;
- the extent to which there are rural areas within the district in relation to which there has been a substantial decline in population;
- the capacity of education services in the district;
- the desirability of maintaining an appropriate number and range of cultural venues and facilities (including in particular, but not limited to, live music venues) in the district;
- the infrastructure of the district (including communications, transport and drainage systems, systems for the supply of water and energy, and health care and education facilities);
- how that infrastructure is used; and
- any change which the planning authority thinks may occur in relation to any of the matters mentioned above.

1.4 This topic paper examines flood risk and water management related evidence for the forthcoming North Lanarkshire Local Development Plan 2 (NLLDP2). The paper identifies what evidence and information has been sourced and subjected to an initial assessment as to the relevance of that evidence and information to NLLDP2.

1.5 Key points from and the potential future relevance of the evidence and information is highlighted, with a view to this informing the approach in progressing the Evidence Report, and NLLDP2 more generally.

1.6 The final Evidence Report will detail the stakeholder engagement and public survey that has taken place in developing its conclusions and will highlight the agreements and disputes that have arisen through this process.

2. Identification of Relevant Evidence

2.1 The relevant evidence has been identified through an evaluation of this topic and assessment of available information linked to the topic and where available evidence shared by external stakeholders has been included. Should additional evidence become available we will consider its implications for the Evidence Report.

3. Consideration of Relevant Evidence

3.1 The following is an explanation of evidence sources which have been used in this Survey Paper and are considered potentially relevant for NLLDP2.

Main Evidence considered:

Source: The Plan for North Lanarkshire (2019)

Reason for using the Evidence: The plan sets out the vision for North Lanarkshire to be a place to Live, Learn, Work, Invest and Visit. NLLDP2 will be a tool to assist

in the realisation of this vision. The vision consists of five priorities that are comprised of 25 high level Ambition Statements. These statements amongst other issues cover refocussing town centres, maximising the use of marketable land, and maintaining a clean, safe and attractive environment. Specific to this topic, the plan looks to ensure the highest standards of public protection by seeking to strengthen resilience to flood risk by promoting avoidance as a first principle and reducing the vulnerability of existing and future development to flooding.

Links to Evidence: [The Plan for North Lanarkshire](#) and [North Lanarkshire Council Climate Plan](#)

Source: SEPA website including Flood Maps

Reason for using the Evidence: provides information regarding flooding, water quality, groundwater, pollution prevention etc. at a local level.

Links to Evidence: [Flood maps | Beta | SEPA | Scottish Environment Protection Agency](#)

Source: SEPA Flood Risk Standing Advice for Planning Authorities and Developers November 2020

Reason for using the Evidence: provides advice on assessing flood risk for a number of categories of development.

Links to Evidence: [sepa-flood-risk-standing-advice-for-planning-authorities-and-developers.pdf](#)

Source: SEPA's Climate Change Allowances for Flood Risk Assessment in Land Use Planning

Reason for using the Evidence: provides guidance on required allowances for climate change that must be used for flood risk assessment following the adoption of National Planning Framework 4 in order to support planning authorities and to ensure places are resilient to current and future flood risk.

Links to Evidence: [SEPA's Climate Change Allowances for Flood Risk Assessment in Land Use Planning](#)

Source: SEPA Position Statement on elevated buildings in areas of flood risk

Reason for using the Evidence: provides a position statement on part of 'relevant SEPA advice' as referred to in criterion a) iv of the National Planning Framework 4 (under Policy 22: Flood Risk and water management). It applies only where such structures are used to enable development that would not otherwise be acceptable according to Policy 22.

Links to Evidence: [Position Statement: Elevated buildings in areas of flood risk | Scottish Environment Protection Agency \(SEPA\)](#)

Source: The River Basin Management Plan for the Scotland 2021-2027 (SEPA, Dec 2021)

Reason for using the Evidence: sets out a framework for protecting and improving the benefits provided by the water environment across Scotland. It provides an

update on the condition of Scotland's water environment and the actions planned to alleviate the pressures.

Links to Evidence: [Water Environment Hub The River Basin Management Plan for Scotland 2021-2027 \(Dec 2021\)](#)

Source: The Clyde and Loch Lomond Local Plan District Flood Risk Management Plan 2022-2028 Cycle 2 (Dec 2022)

Reason for using the Evidence: sets out actions to reduce the impact of flooding within the local plan district. Identifies Potentially Vulnerable Areas (PVAs) at risk of flooding across the plan area and provides localised datasheets on target areas for further focussed assessment of flood risk.

Links to Evidence: [Clyde and Loch Lomond Local Flood Risk Management Plan 2022-2028 Cycle 2](#)

Source: North Lanarkshire Council Draft Strategic Flood Risk Assessment (SFRA)

Reason for using the Evidence: builds on the actions identified in the Clyde and Loch Lomond LPD Flood Risk Management Plan. It reviews the predicted flood risk and the historical flood incidents within defined Council areas. It ranks each area in order of priority based on the impact of flooding to properties. It prioritises action to areas with higher risk of flooding.

Links to Evidence: N/a

Source: NLC Flood Studies (ongoing) and NLC Kilsyth Flood Protection Study 2022

Reason for using the Evidence: Flood Studies are some of the actions identified in the Clyde and Loch Lomond LPD Flood Risk Management Plan and propose potential solutions at specific locations to reduce the risk of flooding from fluvial sources. The implementation of any proposals/schemes are funding dependent. The flood risk management plan for North Lanarkshire Council (NLC) has identified Kilsyth as one of the areas most vulnerable to flooding. In response to the flood risk management plan, NLC commissioned studies to identify potential solutions to reduce the risk of river flooding to properties in Kilsyth.

Links to Evidence: [Kilsyth Flood Protection Study \(northlanarkshire.gov.uk\)](#)

Source: Surface Water Management Plans (Ongoing)

Reason for using the Evidence: Surface water management plans are some of the actions identified in the Clyde and Loch Lomond LPD Flood Risk Management Plan and proposes potential solutions at specific locations, including Sustainable Urban Drainage Systems (SUDS). The implementation of any proposals/schemes are funding dependent.

Links to Evidence: N/a

4. **Assessment of Evidence**

Introduction

- 4.1 The Flood Risk Management (Scotland) Act (2009) introduced new duties to SEPA and Local Authorities, including North Lanarkshire Council, to assess and manage flood risk in a sustainable way within the North Lanarkshire Local Development Plan area.
- 4.2 National Planning Framework 4 (NPF4) is the national spatial strategy for Scotland. It sets out spatial principles, regional priorities, national developments and national planning policy. Policy 22 of NPF4 states that LDPs should strengthen community resilience to the current and future impacts of climate change, by avoiding development in areas at flood risk as a first principle. Resilience should also be supported by managing the need to bring previously used sites in built up areas into positive use; planning for adaptation measures; and identifying opportunities to implement improvements to the water environment through natural flood risk management and blue green infrastructure.
- 4.3 Plans should take into account the probability of flooding from all sources and make use of relevant flood risk and river basin management plans for the area. A precautionary approach should be taken, regarding the calculated probability of flooding as a best estimate, not a precise forecast. For areas where climate change is likely to result in increased flood exposure that becomes unmanageable, consideration should be given to alternative sustainable land use.
- 4.4 The Scottish Government's Local Development Planning Guidance, page 74, defines at risk of flooding or in a flood risk area as land or built form with an annual probability of being flooded of greater than 0.5% which must include an appropriate allowance for future climate change. Such areas, including any significant cross boundary flooding and water issues, as identified by the relevant Strategic Flood Risk Assessment (SFRA), can be referenced in the Evidence Report to inform choices about appropriate locations for development during LDP (Local Development Plan) preparation.
- 4.5 It is expected that the Evidence Report will also have regard to the flood maps prepared by Scotland's Environment Protection Agency (SEPA) and must consider relevant finalised and approved flood risk management plans and river basin management plans.
- 4.6 Flooding affects approximately 9000 properties and businesses within North Lanarkshire and causes disruption to roads and services. We have a responsibility under the Flood Risk Management Act Scotland (2009) to exercise "flood risk related functions" with a view to reducing overall flood risk and in particular, Part 3 of the Act, to secure compliance with the Floods Directive.

SEPA Flood Maps

- 4.7 SEPA Flood Maps provide a national source of data on flood hazards and include information on the likelihood of river (fluvial), coastal and surface flooding.

Figure 1: Definitions for high, medium and low likelihood of flooding

Likelihood of Flooding	River (Fluvial) and Coastal Flooding	Surface Water Flooding
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High	1 in 10 annual probability of flooding (or at least 10% chance of flooding each year)	1 in 10 annual probability of flooding (or at least 10% chance of flooding each year)
Medium	1 in 200 annual probability of flooding (or at least 0.5% chance of flooding each year)	1 in 200 annual probability of flooding (or at least 0.5% chance of flooding each year)
Low	1 in 1,000 annual probability of flooding (or at least 0.1% chance of flooding each year)	1 in 200 year annual probability of flooding plus climate change (or greater than 0.5% chance of flooding each year)

- 4.8 The SEPA Flood Maps now include the Future Flood Maps which provide information on how the areas at risk of river or coastal flooding in a 0.5% Annual Exceedance Probability event may flood due to climate change. The Future Flood Maps are based on the UK Climate Projections' high emission scenarios assuming limited or no global action to reduce greenhouse gas emissions by the 2080s.
- 4.9 They are indicative and provide a useful screening tool (along with any other information available on flooding) to understand where a proposed development may be at flood risk. Where a potential flood risk is identified any subsequent planning applications must be supported by a flood risk assessment which uses the climate change allowances within this guidance to calculate the area "at risk of flooding or in a flood risk area".

SEPA Flood Risk Standing Advice for Planning Authorities and Developers November 2020

- 4.10 SEPA Flood Risk Standing Advice sets out advice and recommendations regarding flood risk for different categories of development. Provided the advice is followed, Planning Authorities are not required to consult SEPA.
- 4.11 The advice is principally aimed at planning authorities to aid the assessment of planning applications to ensure flood risk is adequately assessed, though the paper states developers will find it useful too.
- 4.12 The advice offers recommendations that should be carefully considered in the design of the development and the decision-making process. Recommendations particularly relevant to this topic paper include that a 6m minimum (for channels less than 1m in width and increasing proportionally to channel width) undeveloped buffer strip is provided in perpetuity between all development types and watercourses, allowing space for natural fluvial processes to occur (as well as other attendant environmental benefits, not limited to but including biodiversity, open space, channel maintenance, pollution reduction and river restoration), and that an allowance for climate change should be included when calculating the design flood level as set out in SEPA's Climate Change Allowances paper which is discussed further below.

SEPA's Climate Change Allowances for Flood Risk Assessment in Land Use Planning

- 4.13 A climate change allowance is a prediction of anticipated change in peak river flow, peak rainfall intensity or sea level rise caused by future climate change. The type of

allowance used will depend upon the type of flooding being considered and, for river (fluvial) flooding, the size of catchment or location.

- 4.14 SEPA's Climate Change Allowances for Flood Risk Assessment in Land Use Planning (Version 4) sets out the required climate change allowances for each of Scotland's 11 river basin regions. The North Lanarkshire LDP area falls within the Clyde Basin Region and this region's allowances are outlined in figure 2 below.

Figure 2: Climate Change Allowances for the Clyde Basin Region

Type of Allowance	Description of Allowance	Value of Allowance
Peak river flow	Total change to the year 2100	49%
Peak rainfall intensity	Total change to the year 2080	41%
Sea level rise	Cumulative rise (in metres) from 2017 to 2100	0.85%

- 4.15 It should be noted that the table shows the current climate change uplift and may change in future to a different value. The most up to date guidance should always be consulted.
- 4.16 Climate change allowances should be a key consideration of land use planning decisions to manage areas at risk of flooding. An early understanding of potential future impacts reduces the risk associated with long term investment decisions. Policy 22 in NPF4 aims to ensure that places are resilient to current and future flood risk. This guidance supports planning authorities and other stakeholders involved in the assessment of flood risk in achieving this outcome.

SEPA Position Statement on elevated buildings in areas of flood risk

- 4.17 This position statement constitutes part of 'relevant SEPA advice' as referred to in criterion a) iv of the National Planning Framework 4 (under Policy 22: Flood Risk and water management). It applies only where such structures are used to enable development that would not otherwise be acceptable according to Policy 22.
- 4.18 In accordance with Policy 22, sites suitable for the development of elevated buildings must be identified through the development planning process, where the need to manage flood risk rather than avoid it can be considered alongside and balanced with other policy and placemaking considerations. Avoiding development in a flood risk area is still the best approach to managing flood risk, both now and in the future – in most cases this means avoiding development completely. However, in managing climate change there may be a need to bring previously used urban land near our rivers and coasts back into positive use and to enable existing built-up areas to adapt to increasing flood risk. This must happen in a way that ensures there is no unacceptable risk from flooding to people and places, and that those places are safe and resilient in the long term.

The River Basin Management Plan for Scotland 2021-2027

- 4.19 The river basin management plan (RBMP, cycle 3) monitors the water environment, aiming to protect and improve this asset. The restoration of the water environment can help our communities adapt to the changes created by the climate emergency by building resilience to the increased frequency of flooding and higher temperatures.

- 4.20 The plan sets out the role that SEPA and its partners, including local authorities, have to restore rivers and improve how we manage surface water during storms so to create attractive and accessible blue-green river corridors and spaces within communities that can be used for active travel and recreation to help improve health and well-being.
- 4.21 Developments including planning developments, housing, flood schemes and strategic infrastructure all provide opportunities to improve the environment.
- 4.22 The RBMP outlines the key actions for improvement including:
- Action to create healthier and more resilient communities
 - Water Supply and wastewater
 - Sustainable and resilient rural land use and management
 - Removing man-made barriers to fish migration
- 4.23 The third RBMP cycle aims to deliver 51 new restoration projects that have the potential to improve the ecological condition of rivers in Scotland's towns and cities. The potential projects are highlighted in the [Water Environment Hub](#), and 7 of these projects are within North Lanarkshire.

Figure 3: Urban River Restoration Project, Stane Gardens, Shotts



- 4.24 One such example is Stane Gardens, an urban river restoration project, set within the Shotts community in North Lanarkshire. The area has been blighted by historic industry. The restoration of the river and the creation of the parkland provide the local community with access to good quality greenspace bringing benefits to health & wellbeing. The work was funded by the Water Environment Fund and North Lanarkshire Council.

Clyde and Loch Lomond Local Plan District (LPD) Flood Risk Management Plan

- 4.25 Scotland has been separated into 14 Local Plan Districts for flood risk management purposes. North Lanarkshire Council falls within the Clyde and Loch Lomond Local Plan District. The most up to date plan is the Clyde and Loch Lomond Local Plan District (LPD) Flood Risk Management Plan (Cycle 2), published by Glasgow City Council on behalf of a partnership comprising 10 local authorities including North Lanarkshire Council. This plan builds on the work undertaken during Cycle 1 and sets out the actions to be taken over a six-year planning period from 2022-2028 to manage flood risk in the Clyde and Loch Lomond region.
- 4.26 Six catchments in North Lanarkshire have been highlighted as being Potentially Vulnerable Areas (PVAs) within the Clyde and Loch Lomond Local Plan District.

PVAs are areas within which clusters of properties are at a significant risk of flooding. As part of the Cycle 2 planning process, Target Areas have been created within the identified Potentially Vulnerable Areas to provide a greater focus for action, and are listed for North Lanarkshire, below.

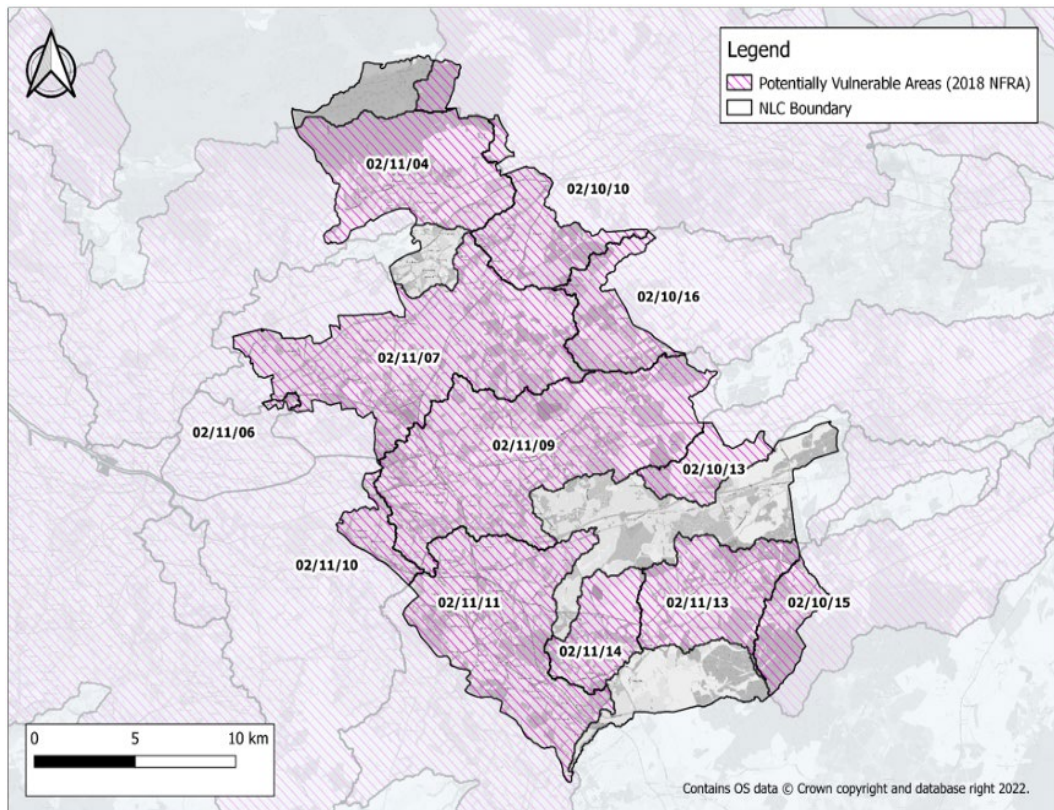
Figure 4: PVA and Target Areas identified within the Clyde and Loch Lomond LPD

PVA Ref	PVA Name	Target Areas identified for North Lanarkshire
02/11/04	River Kelvin	Kilsyth (1)
02/11/07	Luggie Water catchment	Cumbernauld (1)
02/11/09	Coatbridge and Airdrie	Airdrie, Coatbridge, Chapelhall and Plains (4)
02/11/11	Clyde catchment – Motherwell to Larkhall	Holytown and New Stevenson, Motherwell, Newarthill, Wishaw south, Bellshill (5)
02/11/13	Shotts	Allanton (1)
02/11/14	North of Wishaw	Wishaw north (1)

Strategic Flood Risk Assessment (SFRA)

- 4.27 A strategic flood risk assessment (SFRA) has been prepared for the whole of North Lanarkshire. The SFRA reviews the predicted flood risk and the historical flood incidents within each area. It sets out actions to be taken forward for each area, to investigate, and manage flood risk in a sustainable way. Identifying areas at risk from flooding will allow for future flood protection and alleviation schemes to be planned and prioritised accordingly.
- 4.28 SEPA's Flood Maps were overlaid on top of GIS maps of properties in North Lanarkshire to locate properties within each area at risk from flooding. The SFRA identifies 12 PVAs that fall entirely or partially within the administrative boundaries of North Lanarkshire and are listed as follows:
- 02/10/10 Falkirk and Grangemouth
 - 02/10/13 Livingston, Broxburn and Bathgate
 - 02/10/15 West Calder and Fauldhouse
 - 02/10/16 Slamannan
 - 02/11/04 River Kelvin
 - 02/11/06 Glasgow City North
 - 02/11/07 Luggie Water catchment
 - 02/11/09 Coatbridge and Airdrie
 - 02/11/10 East of Glasgow to Strathaven
 - 02/11/11 Clyde catchment – Motherwell to Larkhall
 - 02/11/13 Shotts
 - 02/11/14 North of Wishaw

Figure 5: PVAs in North Lanarkshire council boundaries



- 4.29 The PVAs set out the potential flood risk to each area, the likely cause of flooding, potential economic cost of flooding, and a series of actions required to be completed as part of the Flood Risk Management Act. It is our role as the council to prioritise these actions. However, it is acknowledged that the PVAs only cover 82% of North Lanarkshire and that flooding may affect other communities outside of the PVAs, for this reason an assessment of the entire Council area was undertaken.
- 4.30 As part of this assessment, the Council areas have been ranked in order of priority based on the worst flood risk affected areas, considering both river (fluvial) and surface water flooding. Ranking the areas in this way will enable future actions to reduce flood risk to be prioritised. As actions are completed the ranking and prioritisation for each area will change, with the overall aim to reduce and better manage flood risk within North Lanarkshire.
- 4.31 The areas were ranked based on the number of properties affected by fluvial and surface water flood risk in each area for different Annual Exceedance Probability (AEP). SEPA's flood extent mapping threshold used is 100mm. Fluvial and surface water hotspots were identified where clusters of six or more properties intersected with the SEPA Flood Maps.
- 4.32 By ranking the area's in this way, the prioritisation and justification of future flood studies and surface water management plans will be possible.
- 4.33 The SFRA also considers the fluvial and surface water flood risk to roads and a list of all the roads in the area at a risk from flooding can be seen in the area fact sheets in the document, listed by area and categorised by risk level.

- 4.34 Kilsyth has been identified as at the highest risk of both fluvial and surface water flooding out of all the area's across the council area. Kilsyth PVA is located within the boundaries of Kilsyth area. Currently, there are 410 properties at risk (low, medium, and high) from fluvial flooding in Kilsyth, which is predicted to rise to 470 properties by 2080 as a result of climate change, as identified in the SFRA.
- 4.35 A flood study was completed in 2022, which identified a preferred option to mitigate flood risk within Kilsyth and further work is planned to develop the preferred option to a scheme. It is anticipated that upon completion of the alleviation works in Kilsyth there would be approximately 7 residential and non-residential properties at low risk of flooding with no properties at risk in the high likelihood scenarios. With a revised ranking would change from 1/20 to 20/20.
- 4.36 Airdrie North is also at high risk of both fluvial and surface water flooding. Airdrie comprised of Airdrie North, Airdrie Central, and Airdrie South area's, has historically experienced flooding due to a combination of factors, including surface water and sewer flooding, and overtopping of burns. The key watercourses identified were the North and South Burn, which are heavily modified watercourses and are significantly linked to the surface water network. A flood study and surface water management plan was commissioned to improve the understanding of both the surface water and fluvial flood risk, with the aim of identifying options to reduce flood risk.
- 4.37 Facts sheets summarising the flood risk for each area are contained within 'Appendix C' of the SFRA. These provide information on steps to take 2028 to reduce flood risk in each area. Information regarding proposed actions and recommendations has been taken from the Clyde and Loch Lomond Local Plan District Flood Risk Management Plan, which was created to help local authorities develop their own complementary flood risk management plans.
- 4.38 Several actions are currently being taken forward including:
- Design of Kilsyth Flood Risk Reduction Scheme
 - Airdrie Surface Water Management Plan
 - Motherwell Surface Water Management plan
 - Cumbernauld Surface Water Management Plan
 - Airdrie Flood Study
 - Bellshill Flood Study
 - Motherwell Flood Study

NLC Flood Studies including NLC Kilsyth Flood Protection Study 2022

- 4.39 Flood Studies are some of the actions identified in the Clyde and Loch Lomond LPD Flood Risk Management Plan and propose potential solutions at specific locations to reduce the risk of flooding from fluvial sources. The implementation of any proposals/schemes are funding dependent.
- 4.40 The Kilsyth Flood Protection study seeks to identify opportunities to reduce the risk of flooding from the Garrell Burn, Colzium Burn and Ebroch Burn, whilst improving the environmental condition of the streams and the health and wellbeing of the community.

- 4.41 It identifies potential solutions to reduce the risk of river flooding to properties in Kilsyth, including river restoration works to the Garrell Burn to improve its condition by reinstating natural processes and improving biodiversity.

Surface Water Management Plans (SWMP)

- 4.42 Under the Flood Risk Management (Scotland) Act 2009, all Local Authorities are required to develop a Surface Water Management Plan (SWMP) for the areas outlined in SEPA's Flood Risk Management Plan (FRMP) document which fall under their responsibility.
- 4.43 Several Surface Water Management Plans are being taken forward based on the priority areas identified in the Clyde and Loch Lomond Local District Plan Flood Risk Management Plan, including for Airdrie and Coatbridge, Cumbernauld and Motherwell. SWMPs include an Options Appraisal to prioritise and develop preferred options for identified surface water flood risk 'hotspots'. Further work is required to source and allocate funding before the preferred solutions can be implemented.

5. Potential Connections in Evidence

- 5.1 The Plan for North Lanarkshire is the Council's main strategy for the area to improve services and outcomes for the communities who live here. It provides a shared ambition for inclusive growth and prosperity for all. It sets a path for the council and partners to follow. The Plan covers a wide range of activities that can impact on carbon emissions and help to make North Lanarkshire a more sustainable place to 'live-learn-work-invest-visit'.
- 5.2 In the UK the past four decades have been warmer than the one before. In North Lanarkshire it is expected that the average summer temperatures will increase, and the number of rainy days will reduce. The volume of rain on summer's wettest day will increase. Our winters are expected to be milder. Whilst the impact of climate change may seem to be less severe locally, in recent years we have seen an increase in severe weather events. These can affect us through:
- Travel Disruption
 - Emergency Response Situations
 - Loss of power supply
 - Landslides
 - Flooding
 - Disruption to service Delivery
- 5.3 The council recognised that it must take action and declared a climate emergency in June 2019. Concerned about the impact of climate change on biodiversity, North Lanarkshire Council became a signatory of the Edinburgh declaration on Post-2020 Global Biodiversity Framework.

Flood risk and water management - implications for topic 1 tackling the climate and nature crises

- 5.4 NPF4 Policy 1 seeks to ensure that any development proposal brought forward will require to give significant weight to the global climate and nature crises in its consideration. The spatial strategy should reduce emissions and adapt to current and future risks of climate change by promoting nature recovery and restoration in the area.

- 5.5 The Plan will consider the probability of flooding from all sources and make use of the relevant flood risk and river basin management plans for the area. For areas where climate change is likely to result in increased flood exposure that becomes unmanageable, consideration will be given to alternative sustainable land use.

Flood risk and water management – implications for topic 2 climate mitigation and adaptation

- 5.6 NPF4 Policy 2 seeks to ensure that emissions from development are minimised, and places are more resilient to climate change impacts.
- 5.7 The Plan will seek to take into account climate risks, guiding development away from vulnerable areas and enable places to adapt to those risks.

Conclusion in terms of implications for topic 1 and 2

- 5.8 Actions set out in the SFRA and surface water management plans will be prioritised to minimise flood risk and improve the management of water in the area to ensure there are no significant adverse impacts from development.
- 5.9 The SFRA could be used to highlight areas where opportunities may exist to reduce flood risk to the wider area. An example of this could be for development sites to reduce their surface water discharge rates to less than the maximum allowed to provide betterment to the wider drainage network.

Other topic/policy overlaps stated in NPF4

- 5.10 It is possible that connections may exist with the following topics and in the following ways.
- 5.11 There is potential for some positive and negative effects for the following topic areas:
- Tackling the Climate and Nature Crises
 - Climate Mitigation and Adaptation
 - Biodiversity
 - Blue and Green Infrastructure
 - Design, Quality and Place
 - Health and Safety
 - Infrastructure First
 - Quality Homes
 - Business and Industry
- 5.12 Connections exist with multiple topic papers where flood risk and water management will need to be considered. Many topics areas, including Blue and Green Infrastructure, and Design, Quality and Place have the potential to present positive opportunities to reduce flood risk and improve water management through nature-based solutions, nature positive design and the protection and restoration of natural habitats and the water environment.
- 5.13 Development of housing and business and industry sites may have potential to increase flood risk to surrounding developments and put pressure on existing infrastructure. Any development should prove that it does not increase flooding elsewhere either through a Flood Risk Assessment or through designing any risk out so this does not happen.

6. Site Selection Implications

- 6.1 Consideration must be given to SEPA's Flood Maps and Future Flood Maps, the identified Potentially Vulnerable Areas (PVAs) in the Clyde and Loch Lomond Local District Plan, and the localised flood history by council area identified in the Strategic Flood Risk Assessment and any Surface Water Management Plans. These evidence sources will inform the site assessment process and act as a screening tool to help understand whether a proposed site needs more detailed information (such as a site-specific flood risk assessment) to fully understand its current and future flood risk. SEPA's Guidance on Climate Change Allowances for Flood Risk Assessment should also be considered early in the process to reduce the risk of future potential flooding.
- 6.2 Surface water (drainage and flooding) should be managed sustainably aboveground and should integrate with and enhance the urban landscape, so to avoid new development being at risk of surface water flooding and/or increasing flood risk elsewhere.
- 6.3 A site specific flood risk assessment (FRA) will be required for proposed sites in locations known to be at risk of flooding.
- 6.4 Sites that are found to be at significantly high risk of flooding, with no practical solutions to reduce the risk, will not be taken forward for development and instead may be considered for other sustainable land use purposes.
- 6.5 SEPA's recommended 6m buffer strip of any watercourse will require to be taken into consideration as part of the site selection process.

7. Implications for North Lanarkshire Local Development Plan 2

- 7.1 Flood risk must be fully taken into account when considering the allocation of land and the preparation of the spatial strategy, development proposals and planning policies. It is important to understand how factors such as climate, land use and demographics will influence flood risk in the future so that holistic judgement can be made, and appropriate actions can be taken to sustainably manage flood risk now and in the future.
- 7.2 Based on the evidence, analysis and views presented in this survey paper, North Lanarkshire Council currently considers that the topic policy in NPF4 for flood risk and water management should be applied as per NPF4 in North Lanarkshire as there is no need to consider locally specific policy to support decision making in this regard.