Local Development Plan 2032 Technical Supplement 12

Flooding and Drainage



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1.0 INTRODUCTION

Purpose of this document

- 1.1 This technical supplement is one of a number of topic-based documents detailing the evidence base used to inform the preparation of the Ards and North Down Local Development Plan (LDP) draft Plan Strategy 2032. This suite of documents should be read alongside the policies contained within the draft Plan Strategy, in order to understand the rationale and justification for each policy.
- 1.2 In May 2019, the Council launched the Preferred Options Paper (POP), the first of 3 public consultation documents which will be issued through the LDP process. The POP outlined the vision and strategic objectives of the plan based upon the baseline information detailed in a suite of position papers. The technical supplements which complement the draft Plan Strategy will build upon the baseline information gathered in the position papers and show how this has been progressed through the LDP process to formulate the draft Plan Strategy.
- 1.3 This technical supplement builds upon and updates the Flooding and Drainage Position Paper and, along with the full suite of technical supplements, topic papers and associated documents, sets out the evidence base that has formulated the historic environment policies in the draft Plan Strategy. Public consultation processes and engagement with Elected Members have also been taken into account. It should be noted that this is based upon the best information available at the time of compiling this technical supplement paper. Amendments may be required as new data becomes available or as a result of any changes in policy or guidance.

2.0 PLANNING AND FLOODING

- 2.1 Flooding is a natural phenomenon that cannot be entirely prevented. It can happen at any time and there is consequent risk to people, property, infrastructure and the natural environment. Flooding can originate from rivers (fluvial), rainfall overland (pluvial), reservoirs and the sea (coastal).
- 2.2 It is generally accepted that we are more likely to experience more regular flooding in the future. In urban areas, surface water flooding may increase due to the development of green spaces and paving of gardens and driveways. Tree removal, agricultural drainage and changing land management practices increase flows in watercourses and climate change

predictions also suggest a rise in sea level, increase in winter precipitation and an increase in the intensity of extreme rainfall events.

- 2.3 With regard to flood risk management, there are three main themes:
 - Prevention the avoidance, where possible of new development in areas of flood risk and promoting appropriate land use, agricultural and forestry practices.
 - Protection structural and non-structural measures to reduce the likelihood and impact of floods
 - Preparedness providing instructions to the general public on what to do
 in the event of a flood to their property and adapting existing property to
 the risk of flooding.
- 2.4 The LDP has a key role to play in balancing pressure for development within Ards and North Down Borough against flood risk and to prevent future development that may be at risk of flooding or that may increase the risk of flooding elsewhere.

3.0 REGIONAL POLICY CONTEXT

Programme for Government 2024-2027

3.1 The Northern Ireland Executive has agreed 'Our Plan: Doing What Matters Most', the Programme for Government (PfG) 2024-2027. The PfG sets out the Executive's priorities for making a difference to people's lives – comprising nine immediate priorities and three long-term missions of people, planet and prosperity, with a cross-cutting commitment to peace

Draft Programme for Government 2016-2021

3.2 The previous draft Programme for Government 2016-2021 was the most up to date expression of the highest level of policy from the Northern Ireland Executive during much of the preparation of the draft Plan Strategy. It set out 14 strategic outcomes, and Outcome 2 'We live and work sustainably – protecting our environment' is the outcome that has the most relevance to flooding.

Draft Programme for Government Outcomes 2021

3.3 The Executive consulted on a new Programme for Government in 2021 that aimed to bring a new focus to deliver lasting, real and positive change in people's lives, reflecting the messages contained in 'New Decade New Approach'. The draft Framework contained nine strategic Outcomes which,

taken together, set a clear direction of travel for the NI Executive and provided a vision for the future of all citizens.

The Regional Development Strategy (RDS)

- 3.4 The Regional Development Strategy (RDS) provides an overarching strategic planning framework to facilitate and guide future development throughout Northern Ireland. In relation to flooding and drainage, the RDS recognises the need to avoid, where possible, the selection of flood prone land for employment and housing growth. It urges the planning system to adopt a precautionary approach to development in areas of flood risk.
- 3.5 Regional Guidance (RG) 12 'Promote a more sustainable approach of water and sewerage services and flood management,' states that changes in population distribution, household formation, urban development and our changing lifestyles continue to put increased pressure upon our water resources and drainage systems. Climate change will also have an impact upon our water environment, with potentially increased flood events from drainage systems, rivers, the sea and surface water runoff. The following measures should be implemented:
 - Integrate water and land use planning this will involve close co-operation between planning authorities and the water industry in the preparation of local development plans and long-term water strategies
 - Manage future water demand reducing water consumption by reducing waste can lead to a lower carbon footprint as less water will need to be abstracted, treated and pumped
 - Encourage sustainable surface water management greater use of Sustainable Drainage Systems (SuDS) should be encouraged, particularly as part of significant development proposals. SuDS provide a water quality benefit and if designed appropriately, can help control flows into rivers and drains, thereby reducing the risk of flooding. All new urban storm water drainage systems should incorporate measures to manage the flow of waters which exceed design standards in order to help protect vulnerable areas.

Sustainable Water – A Long Term Strategy for Northern Ireland

- 3.6 Published in March 2016 by the Department for Infrastructure, this strategy presents a clear framework for action to deliver a long-term vision for a sustainable water sector in Northern Ireland.
- 3.7 Part 3 of the Strategy makes a range of recommendations to be considered when preparing the LDP. It calls for the delivery of sustainable flood resilient

development that can withstand extreme rainfall events. Other key aims include management of catchments to reduce flood risk, improving flood resilience in high flood risk areas, providing sustainable integrated drainage in urban and rural areas and to be prepared for extreme weather events. It also promotes engagement with local councils on how development proposals (including land use zonings in LDPs) can incorporate large scale drainage schemes.

Managing Water – A Strategy for Promoting the use of Sustainable Drainage Systems

- 3.8 This strategy was produced by Department of Agriculture, Environment and Rural Affaire (DAERA) in 2011, to promote the concept of Sustainable Drainage Systems (SuDS) through future regional planning policy and via LDPs. The use of SuDS can be encouraged through the following measures:
 - When zoning lands for development, large surface water schemes such as lakes, wetlands and woodlands could be incorporated to meet the future drainage needs of the proposed development in the area
 - Planning policy should require that drainage proposals are considered at design stage so that the final scheme minimises surface runoff. Typical examples include green roofs, permeable paving, soakaways, ponds and wetlands
 - Planning policy should incorporate the requirement for 'design for exceedance' in all new development. In other words, developers must indicate how the proposed drainage system will cope in the event that surface water runoff exceeds normal or expected levels.
 - Planning policy should require that SuDS are the preferred option for all new development.
- 3.9 The recommendations of the strategy have been endorsed by the NI Assembly's Environment Committee and an inter-departmental agency, known as the Stormwater Management Group (SMG) has been set up to facilitate their implementation. The key deliverables identified by the SMG are as follows:
 - An implementation strategy for sustainable drainage in NI
 - Legislation which will enforce sustainable drainage
 - Technical guidance for the most effective drainage systems
 - The establishment of an approval body which will assess and approve sustainable drainage proposals for new and retrofit schemes. This body will work closely with planning authorities
 - New companies will be created to service the new systems, creating new jobs

Strategic Planning Policy Statement for Northern Ireland

- 3.10 The Strategic Planning Policy Statement (SPPS) was published by the Department of the Environment (DOE) in September 2015. The aim of the SPPS in relation to flood risk is to prevent future development that may be at risk from flooding, or from development that may increase the risk of flooding elsewhere.
- 3.11 LDPs must take account of the potential risks posed by flooding over the plan period and beyond as this is likely to influence decisions on matters such as the zoning of land for development or the designation of sites as open space. Flood risk may also be a consideration for the designation of new settlements. LDPs should also promote sustainable drainage within the plan area by including such solutions as key site requirements where appropriate to individual zonings.
- 3.12 LDPs must take account of the most up to date information on flood risk, in particular, information available on the Strategic Flood Map. There should be early consultation with Dfl Rivers on strategic issues relating to flood risk management.
- 3.13 LDPs should adopt a precautionary approach to development in areas that are susceptible to flood risk presently or in the future as a result of climate change predictions. Consequently, LDPs should not bring forward sites or zone land that may be susceptible to flooding, presently or in the future, unless there are exceptional circumstances.

4.0 PLANNING POLICY STATEMENTS AND SUPPLEMENTARY GUIDANCE

4.1 Current operational planning policy in relation to flooding and drainage is contained within the following documents:

Planning Policy Statement 15 (Revised) (PPS15) - Planning and Flood Risk

4.2 The policy approach of PPS15 is to prevent development within fluvial and coastal flood plains, protect existing flood defences, protect developments from overland (pluvial) flooding and prevent unnecessary culverting or closure of existing river channels. Development is not permitted in flood plains unless it satisfies one of a number of exceptions such as being classified as essential infrastructure. The policy also requires the submission of a Drainage Assessment for a range of developments exceeding certain thresholds,

including new development sites in excess of 1 hectare, in order to address the issue of pluvial flooding.

Addendum to Planning Policy Statement 7 (PPS7): Safeguarding the Character of Established Residential Areas

- 4.3 Policy LC3 states that 'favourable consideration will be given to the use of permeable paving within new residential developments as a means of reducing the risk of flooding associated with surface water runoff. Where appropriate, private driveways, patios, paths and shared hard landscaped areas should be built using permeable paving materials.'
- 4.4 Permeable pavements are one example of a sustainable drainage system that can be easily implemented to help control the flow and speed of surface water runoff whilst blending into the urban fabric of a new residential development.

The Reservoirs Act (NI) 2015 and Technical Advice Note: The Practical Application of Strategic Planning Policy for Development in Proximity to Reservoirs (June 2020)

4.5 Prior to 2015, there was no statute governing reservoir safety in Northern Ireland. Instead, reservoir owners had only a common law duty to ensure that uncontrolled reservoir releases did not harm people or property. Fortunately, there had been no loss of life in Northern Ireland due to reservoir failure, but several incidents of dam failure are known to have caused property damage. The NI Executive agreed in 2009 that legislation should be brought forward to develop a reservoir safety regime for NI. The resulting Reservoirs Act (NI) 2015 states its objective:

'To introduce a regime for the management and regulation of reservoirs to protect the public from the risk of flooding. It is proposed that reservoirs should be managed and operated to minimise the risk of flooding due to an uncontrolled release of water resulting from dam failure thereby protecting people, the environment, cultural heritage and economic activity.'

- 4.6 The key features of the Reservoirs Act (NI) 2015 are:
 - Registration Reservoir Managers are required to register controlled reservoirs:
 - Registration threshold the Act relates to reservoirs over 10,000 cubic metres capacity;
 - Designation Reservoirs are designated 'high,' 'medium,' or 'low' consequence;

- Commissioning of Reservoir engineers To supervise and inspect reservoirs and
- Compliance Reservoir managers must comply with reservoir engineers' recommendations.
- 4.7 The Act received Royal Assent on 24 July 2015, however few of its provisions have been commenced and this creates problems with implementation. Before the Act can be fully enacted, Dfl must develop technical details (such as the designation criteria) and put forward secondary legislation to deal with matters such as the registration and designation of reservoirs and appointment of reservoir engineers.
- 4.8 Technical Advice Note 25 is an interim policy that aims to improve reservoir safety, whilst minimising costs and delays to development applications resulting from the latent Act. It relates specifically to how Dfl Rivers applies its responsibilities with respect to policy FLD5 of PPS15 'Development in Close Proximity to Reservoirs.' It provides advice to planning authorities dealing with applications for development within the flood inundation areas of a controlled reservoir.
- 4.9 The guidance states that new development within the inundation area of a controlled reservoir can be justified where the condition, management and maintenance regime of the reservoir are appropriate to provide assurance of reservoir safety. Confirmation of this for planning purposes could include the submission of a written agreement between the Responsible Reservoir Manager and Dfl to comply with the relevant legislation. However, in cases where a Responsible Reservoir Manager has not been conferred, a current inspection report, signed off by an All Reservoirs Panel Engineer may be appropriate. In cases where neither of these documents are available, development will be restricted to replacement buildings or minor development that would increase the potential future flood risk area. In some cases, the submission of a Flood Risk Assessment (FRA) may permit other development.

5.0 LOCAL POLICY CONTEXT

Living with Water Programme (Dfl Rivers and NI Water)

5.1 The Living with Water Programme (LWWP) focuses upon greater Belfast as it is here that drainage infrastructure problems are most acute in Northern Ireland. As a direct neighbour to Belfast City Council, with rivers in the Craigantlet Hills feeding into the Belfast catchment and two wastewater

- treatment works (WWTW) discharging into Belfast Lough, our Council is one of the key stakeholders in the establishment of this initiative.
- 5.2 The LWWP is a long-term plan that promotes partnership working to develop integrated sustainable solutions for the benefit of society. It represents a new approach to the provision of drainage and wastewater infrastructure that promotes holistic and integrated solutions to achieve multiple benefits at reduced cost and disruption. For example, by using open spaces and watercourses to enhance the environment, promoting recreational opportunities and by sustainably managing water to help reduce flood risk this is called 'blue/green infrastructure.' In addition to blue/green infrastructure, it is recognised that significant investment is required in more traditional 'hard engineered' infrastructure like sewers, pumping stations and upgrading to Wastewater Treatment Works (WwTW).
- 5.3 In October 2023, Dfl published a LWW Progress Report, covering the period between November 2021 to March 2023. This highlighted some key achievements of the programme with the greater Belfast Area and further afield, such as flood alleviation schemes, Wastewater Treatment Works, the development of drainage infrastructure plans and community engagement events. Overall, it was concluded that the first full year of delivery of the LWWP has been characterised by the development work required to establish a strong governance and operational management framework, which will provide a foundation for the successful development and delivery of capital schemes going forward.

The Big Plan for Ards and North Down 2017-2032

- 5.4 The Big Plan is the Community Plan providing an overarching framework setting out a shared vision and ambition that Ards and North Down's Strategic Community Planning Partnership has agreed to work towards over the next 15 years. The vision of the plan is that Ards and North Down is a vibrant, connected, healthy, safe and prosperous place to be.
- 5.5 The overarching, cross-cutting ambition of The Big Plan is 'to have empowered, resilient individuals and communities, to reduce inequality; to promote good relations and sustainability; and to improve accessibility of all public services.'
- 5.6 The Big Plan contains five outcomes that the Plan hopes will reflect the position of the Borough by 2032. The following are of relevance to this technical supplement:

- Outcome 3 All People in Ards and North Down live benefit from communities where they are respected, are safe and feel secure
 Policies relating to flood risk should ensure that people and property are adequately protected from risks posed by flood inundation, with additional protection afforded to 'vulnerable groups' for proposed developments in a flood plain.
- Outcome 5 All People in Ards and North Down benefit from an environment that is valued, well-managed and accessible

 The flooding and drainage policies in the LDP should restrict development.

The flooding and drainage policies in the LDP should restrict developments in areas of the Borough that are subject to flooding risks from rivers and the sea. Furthermore, specific policy on SuDS should have environmental benefits

5.7 The Local Government Act 2014 through an amendment to Section 8 of the Planning Act (Northern Ireland) 2011 introduced a statutory requirement that the preparation of the LDP must take account of the Community Plan. The Big Plan will work in tandem with the LDP providing the spatial framework to achieve the shared vision for the Borough.

Ards and North Down Corporate Plan 2024-2028: A Sustainable Borough

5.8 The core of Councils Corporate Plan is the vision of a sustainable Borough where environmental, social and economic wellbeing are interdependent. The flooding and drainage policies of the LDP can contribute positively to achieving the key aims of the Plan by ensuring development is only approved in the most sustainable locations, avoiding the economic implications of loss or damage to property. The policies protect flood plains which act as natural buffers between built development and rivers and the retention of these areas, and this is in line with Outcome Two of the Plan which refers to being an 'environmentally resilient Council and Borough.' The Sustainable Drainage Policy is also positive in terms of meeting net zero carbon targets.

The Integrated Strategy for Tourism, Regeneration and Economic Development 2018-2030 (Ards and North Down Borough Council)

5.9 The Integrated Strategy presents a vision for the pursuit of prosperity in the Borough of Ards and North Down. The strategy recognises that a place-based approach to sustainable planning and design represents a gateway to attracting visitors and investment.

6.0 EXTANT AREA PLANS

6.1 It should be noted that BMAP was adopted in September 2014 but was subsequently quashed as a result of a judgment in the Court of Appeal delivered on 18 May 2017. As a consequence of this, the North Down and Ards Area Plan 1984-1995, the Belfast Urban Area Plan, and Bangor Town Centre Plan 1995 are now the statutory Development Plans for the North Down area with draft BMAP remaining a material consideration. These plans remain extant until replaced by the new Local Development Plan (LDP) for the Borough. The existing plans are an important consideration in the LDP process, as they provide a starting point for the review of our spatial planning options.

Draft Belfast Metropolitan Area Plan 2015 (dBMAP)

- 6.2 Volume 7 of draft BMAP 2015 sets out policies for (former) North Down District. These policies have been developed in the context of the Plan Strategy and Framework contained in Volume 1 of the Plan and are in general conformity with the RDS.
- 6.3 The Plan cites the Enler River is one of a number of major recorded flood areas that could significantly affect particular settlements within the Plan area. Many of the large, zoned housing areas in Bangor such as BR04/04: South of Green Road, BR04/05: Lands at Rathgael Training Centre and BR05/11: Ballykillaire include flood risk assessments in the Key Site Requirements.
- 6.4 The Plan therefore advises prospective developers to liaise early with NI Water and Dfl Rivers in the formation of their proposals so that they may gain clarification on flooding or flood plain issues that may affect particular sites.

Ards and Down Area Plan 2015 (ADAP)

6.5 The ADAP was adopted in 2009 and relates to the legacy Ards Borough Council area. The ADAP again highlights the areas alongside the Enler River in Comber as major areas of flooding. The Enler acts as a significant environmental constraint to the continued urban growth and expansion of the town. However, on a positive note the river corridor does provide an important wetland habitat and landscape feature.

7.0 CROSS BOUNDARY POLICY CONTEXT

7.1 Throughout the LDP process it has been important to take the position of other councils and particularly our neighbouring councils into account. Ards and

North Down Borough is bounded by Belfast City, Lisburn and Castlereagh City and Newry, Mourne and Down Council areas, each of which are at different stages in the formulation of their own LDP.

Table 1: Neighbouring Councils Position in relation to the Flooding and Drainage

Council	Document		
Belfast City Council (BCC)	BCC Plan Strategy was formally adopted on 2 May 2023. Policy ENV4 of the DPS deals with flood risk and states that planning applications in flood risk areas must be accompanied by a Flood Risk Assessment. In all circumstances, the council will adopt a precautionary		
	approach in assessing development proposals in areas that may be subject to flood risk either presently or in the future. All planning applications will be determined with reference to the most up to date flood risk information and in consultation with Dfl Rivers.		
Lisburn Castlereagh City Council (LCCC)	Lisburn and Castlereagh City Council adopted its Local Development Plan 2032 draft Plan Strategy on 26 th September 2023.		
	Strategic Policy 24 states that the LDP will support proposals that reduce the risks of flooding, encourage the use of sustainable drainage systems to alleviate issues around surface water flooding and adopt a precautionary approach in instances where the precise nature of any risk is as yet unproven.		
Newry, Mourne and Down District Council (NM and D)	The NM&D draft Plan Strategy was published on 27 th June 2025. It contains operational planning policies for development in flood plains, which is only to be permitted where certain exceptions are met and where a flood risk assessment demonstrates adequate measures to manage and mitigate against flood risk. There are also policies relating to development in proximity to reservoirs, artificial modification of watercourses and pluvial flooding.		

Policy FRD6 relates to SuDS solutions (both hard and soft) for the management of surface water runoff and notes a requirement for SuDS for all developments that require submission of a drainage assessment.

- 7.2 The Council has engaged with each neighbouring Council's POP consultation as well as the DPS consultations of Belfast City Council and Lisburn and Castlereagh City Council.
- 7.3 Professional officers from the LDP team also take part in a number of cross council forums including the Metropolitan Spatial Working Group and the Development Plan Working Group.

8.0 PROFILE OF FLOODING AND DRAINAGE IN ARDS AND NORTH DOWN

- 8.1 The 2007 EU Floods Directive was intended to help member states establish a framework for managing flood risk, with the aim of reducing the adverse consequences of flooding on human health, the environment, cultural heritage and economic activity. The Directive required the relevant authorities to carry out flood risk assessments for each river basin and on the basis of this assessment, identify areas for which potential flood risks exist. These are called Areas of Potential Significant Flood Risk (APSFRs) and Bangor has been identified as one of the 12 APSFRs designated in Northern Ireland. The information gathered is used to prepare flood hazard maps for these areas and also to publish Flood Risk Management Plans that focus upon prevention, protection and preparedness.
- 8.2 The fluvial landscape of Bangor is characterised by small fluvial catchments which fall gently from the outskirts of the settlement to the coast. Around the city centre, there are steeper gradients, falling down towards the marina and pier, and causing limited pooling of surface water in this area. There are no formal flood defences in Bangor. There are six watercourses within the urban footprint that have the potential to adversely affect the urbanised area of Bangor Carnalea, Rathmore, Clandeboye and Beechfield Streams, Ballyree Drain and the Cotton River.
- 8.3 Historical records state that very few properties in Bangor have been inundated with flood water in recent years. This may be attributed to the fact that major improvements were made to the urban watercourses in the 1990s. The most extensive scheme, undertaken on the Ward Park Stream, accommodated flows from development outside the ring road and involved

culverting the watercourse through the developed area in the vicinity of Gransha Road to outlet pondages in Ward Park. Works on this watercourse were also undertaken downstream of the park, during construction of the Flagship Centre. Other minor drainage improvements have taken place on the local watercourses gradually over the years.

- 8.4 NI Water has carried out phased investment in the water and wastewater networks across Bangor to introduce new pumping stations, increase capacity and improve water quality. A £4 million programme of work to replace ageing wastewater pumping stations at Brompton Road and Stricklands Glen was completed in 2022. Both of these stations, which are located on the North Down coastal path, have been in operation for over 50 years and are nearing the end of their useful lives. They also offer no capacity for stormwater storage which is now a regulatory requirement. To resolve these issues, new fully automated wastewater pumping stations will be constructed. The scheme also includes the upgrade of the associated sewerage infrastructure in order to reduce the risk of out-sewer flooding and increase the capacity of the sewerage system in the area. Construction works are currently taking place on site.
- 8.5 In terms of surface water (pluvial) flooding, the urbanised nature of Bangor and the large areas of impermeable roads and surfaces leads to surface runoff and flooding in some areas during periods of high rainfall. However, the fairly steeply sloping landform towards the coast can help to discourage surface water from pooling significantly and therefore reduce the duration of flooding.
- 8.6 Sustainable drainage has been recognised as a valuable method of flood mitigation in Bangor. In 2017, Clandeboye Primary School became the first school in Northern Ireland to be served by a soft sustainable drainage system, by creating a rainwater garden to intercept surface water runoff and therefore attenuate and reduce the amount of water entering the nearby Clandeboye Stream.
- 8.7 The other principal settlement within the Borough is Newtownards. The town fringes the northern tip of Strangford Lough and relies upon sea defences to protect low-lying areas from flooding. The construction of sea defences as a means to alleviate flooding risks to the settlement dates back to 1810, when embankments were constructed as part of a land reclamation scheme by Lord Londonderry. The embankments were extended in 1859 and again in the 1950s, when a waste water pumping station was built at Ballyrickard. In the 1970s, the banks were raised and widened, and rock armouring was placed on the seaward face. During the 1980s and 1990s, significant failure and breaches of the defences took place due to deterioration of the structure and

this prompted the implementation of a £4 million flood alleviation project in 2001. The existing earth embankments were reconstructed using rock armour and steel and works were also carried out along 2.4km of Ards Canal banks. The sea defences protect an extensive area of around 3km² (which includes the airfield and substantial residential/commercial property) from tidal storm surges up to the 1 in 200-year event. This defence system is still in good structural condition, provides an appropriate level of flood protection and therefore there are no additional measures required to mitigate the coastal flood risk to the settlement.

- 8.8 Newtownards is drained through a network of small watercourses which are mostly culverted and drain into the tidally influenced drainage channel known as the Ards Canal. The major tributaries are the Glen River and Ballyharry Stream to the north and the Kiltonga Stream and Scrabo stream to the west. Rivers Agency has determined that the only watercourse within the urban area which does not have the capacity to vent extreme floods up to and including the 1% AEP is Ballycullen Stream.
- 8.9 In the 2011 Preliminary Flood Risk Assessment, Newtownards was identified as an Area of Significant Flood Risk. However, the more recent 2018 Assessment utilised more detailed fluvial and coastal flood hazard mapping and also factored in the effectiveness of existing flood defences and culverts in reducing flood risk. Newtownards is no longer considered to be an Area of Significant Flood Risk due to the significant defences that protect the town from coastal flooding sources. It was reclassified as a 'Transitional Area of Significant Flood Risk' (TASFR). It was given this classification along with 9 other NI settlements to ensure continuity between the 2011 and the 2018 Flood Risk Management Plan and to facilitate implementation of any outstanding commitments arising from the previous Flood Risk Management Plans.

9.0 FLOOD MAPS NI

9.1 Flood Maps (NI) is an interactive map-viewer that enables users to access the latest flood hazard information available from the Government. It has been developed by Dfl to provide a general overview of the flood risk in Northern Ireland and its main aim is to increase awareness of the likelihood of flooding and to encourage the general public, local authorities and other organisations to take appropriate action to manage the risk.

- 9.2 Flood Maps NI is used by local government to inform the planning process in terms of controlling development and in the preparation of development plans. Local government will also use other sources of information to inform planning decisions. Detailed flood maps have been produced for areas that have been determined by government to be at significant risk of flooding and are an important step in the development of flood risk management plans for these areas.
- 9.3 Within the indicative flood maps, there are two distinct series of maps which are entitled 'Present Day' and 'Climate Change.' The present-day map layer was established through modelling techniques which use meteorological, river flow and sea level data which is relevant at this point in time.
- 9.4 It is however widely accepted that our climate is changing and that, with the passage of time, sea levels around our coastline will rise and extreme rainfall events may become more frequent and intense. Therefore, the climate change map layer has been produced to reflect the predicted flood plain outlines for the year 2080 and this is based upon the best available predictions for the meteorological conditions and sea levels at that time.

10.0 PREFERRED OPTIONS PAPER

- 10.1 The Council's Preferred Options Paper, (POP) published in 2019 was the first formal stage in the preparation of the LDP for the Borough. It was designed to promote debate in relation to key strategic planning issues arising in the area. The POP identified 42 key planning issues and examined options for addressing these issues. In each case, a preferred option was highlighted and the rationale for selection of this option was given.
- 10.2 The POP also includes a review of the existing operational planning policies, largely contained within the suite of Planning Policy Statements. This review stimulated public debate on whether the existing policies are still suitable or whether a different approach would be more appropriate to meet local circumstances.
- 10.3 Following a minor revision to the online version of the POP, the 12 week consultation period was relaunched and therefore the total consultation period from the official launch was 19 weeks.

POP Representations

10.4 Key Issue 19 - Developing in Areas of Flood Risk

This issue presented a preferred option to 'adopt a precautionary approach to development – only permitting certain suitable types of development in flood prone areas, in line with the SPPS and with appropriate mitigation.' Of the respondees to the consultation, 58.33% agreed that this was an appropriate way of dealing with development proposals in flood prone areas.

10.5 Key Issue 20 Sustainable Drainage Systems

Option 20a of the POP advocated 'bringing forward policy to require the use of Sustainable Drainage Systems (SuDS) in new developments.' There was widespread support for this amongst those who responded to the POP consultation, with 89.29% agreeing that this was the correct approach.

10.6 For further details on the POP consultation, please see the Preferred Options Consultation Report, dated April 2025.

Consultee and Councillor Engagement

10.7 In order to meet the requirements of the Planning Act (NI) 2011 relating to the need for the Plan Strategy to take account of the RDS, other policy and guidance issued by the Department and other relevant government strategies and plans; Council has engaged key consultees representing relevant central government departments and agencies.

Consultee responses

- 10.8 DFI Rivers was broadly supportive of the preferred option in for key issue 19 and advised the council to work closely with the Department when drafting policy in relation to the precautionary approach to the presumption against development in areas of flood risk. The POP does not make reference to the protection of flood defences and artificial modification of watercourses so again DFI Rivers advises close collaboration when drafting policy in relation to these topics.
- 10.9 Both Dfl Planning and Dfl Rivers were in favour of bringing forward a policy requirement for SuDS in new developments. However, it was noted that as DFl has no remit to specify the type or design of any SuDS system, Council needs to consider long term maintenance and adoption of any such options. Evidence of adequate attenuation volume within the site curtilage, appropriate restriction mechanisms will need to be submitted along with implementation methods.
- 10.10 DfE Minerals and Petroleum Branch pointed out that SuDS will not work in all cases. Encouraging water to infiltrate or be retained can result in an increase

in groundwater levels, which in turn can lead to flooding in other areas. This highlights the need for careful consideration of ground conditions to ensure that any potential new SuDS system will function properly and not cause drainage problems in other locations.

Council engagement

- 10.11 Representatives from relevant Council departments have also been engaged to ensure that due account has been taken of Council's Community Plan, as well as other Council strategies and initiatives. Officers from the LDP team have taken part in a series of Community Plan Thematic Group meetings and engagement events. Furthermore, members of the Community Plan team have also attended LDP workshops and sustainability appraisal meetings.
- 10.12 The Planning Act requires the Plan Strategy to be adopted by resolution of the Council, following approval by the Department for Infrastructure (Dfl). Accordingly, Elected Members have also been engaged in the development of draft Plan Strategy, to ensure that the document is generally aligned with Council's strategic priorities. This engagement was facilitated through two council workshops. The first of these took place on 21 March 2018 and provided an introduction to the topic for members. The second workshop was on 22 January 2020 and focussed on policy development for flooding and drainage. Background papers were circulated to all members prior to these events.
- 10.13 Members were largely supportive of the approach in relation to development in flood risk areas and recognised that the policy had to be relatively lengthy due to its complexity. They highlighted the important role of DFI Rivers in terms of updating Flood Maps NI when appropriate and issuing technical guidance. It was acknowledged that the wider impacts of developments needed to be taken into account in decision making to ensure that flooding is not exacerbated elsewhere and that greater awareness of surface run off as a flooding source is required. Members requested that opportunities for 'innovative' forms of development such as houses on stilts should be retained in the policy approach.
- 10.14 The draft Plan Strategy, which included policies for flooding and drainage, was presented in confidence to full Council in September 2022. It was agreed in principle by Members.

Development Management Team

10.15 The members of the development management planning team were largely content with the existing policy approach, in recognition that PPS15 is a relatively recently published policy that is working well in operational

terms. They welcomed the updates made to the reservoir policy following the publishing of the revised Dfl guidance and the addition of SuDS policy.

Sustainability Appraisal

- 10.16 The formal Sustainability Appraisal process (SA) was undertaken by the LDP team and Shared Environmental Services in March and April 2024. The councils' preferred policies and proposals were appraised against reasonable alternatives. The process proved useful in further refining policies in relation to sustainability objectives.
- 10.17 The SA process directly contributed to the refinement of flooding and drainage planning policies. It highlighted that reference should be made to above-ground soft SuDS as a form of flood defence and drainage infrastructure, protected under policy FLD 2.

11.0 DRAFT PLAN STRATEGY APPROACH

- 11.1 The fundamental approach of the draft Plan Strategy is to support the aims and objectives of the RDS and the SPPS by providing a strategic policy framework that secures the management of development in locations that may be at risk of flooding or that may increase the risk of flooding elsewhere. Additionally, the policy aims to protect flood defences, drainage infrastructure and promote sustainable drainage systems.
- 11.2 The draft Plan Strategy has been informed by the POP responses and all of the other methods of engagement that are described above. The following is a summary of the policy amendments and additions that are being put forward in consideration of all of the evidence gathered to date.

Development in Proximity to Reservoirs

11.3 Paras. 4.5-4.9 of this technical supplement explains the background to the Reservoirs Act (NI) 2015 and the implementational difficulties that gave rise to Technical Advice Note 25. The policy wording and Justification and Amplification for policy FLD 5 –Development in Proximity to Reservoirs has been updated to reflect the interim ways in which it can be demonstrated that 'the condition, management and maintenance of the reservoir are appropriate to provide assurance of reservoir safety.' These include:

- The submission of a written agreement between the Responsible Reservoir Manager and Dfl Rivers to comply with the relevant sections of the Act; or
- In cases where a Responsible Reservoir Manager has yet to be conferred, a current inspection report 'signed off' by an All Reservoirs Engineer.
- 11.4 A flood risk assessment will not be required if the above information is deemed sufficient to provide the necessary safety assurances for planning purposes.

Sustainable Drainage Systems

- 11.5 Para. 1.118 of the SPPS states that 'planning authorities should encourage developers to use sustainable drainage systems (SuDS) as the preferred drainage solution.' The benefits of SuDS are wide ranging and include:
 - Flood risk management;
 - Water quality management by reducing the impact of diffuse pollution;
 - Improving amenity and biodiversity through the integration of green infrastructure with SuDS can help create habitat, recreational and biodiversity areas;
 - Water resource as SuDS can help recharge groundwater supplies and capture rainwater for re-use purposes;
 - Community benefits of attractive well-designed spaces that incorporate SuDS can help build social cohesion and quality of life improvements;
 - Educational value: and
 - Enabling development as SuDS can help to free up capacity in already established drainage networks.
- 11.6 The concept of SuDS goes right to the heart of the core planning principles of the SPPS in terms of furthering sustainable development, mitigating and adapting to climate change, ecosystem services, creating and enhancing shared space, supporting good design and positive placemaking and preserving and improving the natural environment. The revised policy for flooding and drainage contains a new policy FLD 6 Sustainable Drainage. This requires the use of a SuDS solution for any development with a site area greater than 1 hectare,10 dwellings or 1000sq metres of building or hard surfacing unless it is clearly demonstrated that the site is fundamentally unsuitable for a SuDS solution.
- 11.7 The Justification and Amplification for new policy stresses that developers should consider the incorporation of SuDS as early as possible in the design process as the appropriateness of a particular SuDS approach will depend upon a variety of factors including hydrogeology, topography, geology and the

availability of discharge points. Any submitted planning application will also be expected to provide detail on the practical implementation of SuDS and demonstrate that suitable arrangements are in place for the long-term management and maintenance of the infrastructure upon which the SuDS depends.

12.0 SOUNDNESS

12.1 The LDP has been prepared to meet the tests of soundness as set out in the Dfl Development Plan Practice Note 6: Soundness (Version 2, May 2017). The draft Plan Strategy insofar as it relates to flooding and drainge subject policies and other relevant policies in the document is regarded as sound, as it is considered to have met the various tests of soundness as summarised below:

Table 2: Consideration of Soundness

Proce	dural Tests
P2	The flooding and drainage policies have evolved from the POP, POP consultation Report and Consultee, Development Management and Councillor Engagement as described in earlier sections of this document.
P3	The flooding and drainage policies have been subject to Sustainability Appraisal. Further details are included in the Sustainability Appraisal Report.
Consi	stency Tests
C1	The flooding and drainage policies have taken account of the RDS in particular RG12.
C2	The flooding and drainage policies have taken account of our Community Plan, particularly outcomes 3 and 5. Refer to paragraphs 5.4-5.7 of this document.
C3	The flooding and drainage policies have taken account of existing planning policies as contained within the SPPS, in particular paragraphs 6.99-6.132. Regard was also given to revised PPS15 Planning and Flood Risk and policy LC3 of the addendum to PPS 7.
C4	

The flooding and drainage policies have taken account of the existing development plans within Ards and North Down, ongoing Council initiatives and the neighbouring council context.

Coherence and Effectiveness Tests

CE1	The flooding and drainage policies have taken account of the emerging LDP's of the three neighbouring Councils, and it is not considered to be in conflict with them.
CE2	The flooding and drainage policies are founded on a robust evidence base which includes the baseline information assembled in the Flooding and Drainage Position Paper, the POP and responses to it and subsequent consultation with consultees, including Dfl Rivers.
CE3	As part of the monitoring process, the Council will monitor the number of applications that are approved in floodplains, contrary to policy provisions and DFI Rivers advice. One or more permission in any one year will trigger a review of the policy. In terms of major new developments incorporating SuDS measures, the trigger for review is that if less than 50% of qualifying applications are approved over a 5 year period without SuDS measures.
CE4	Flooding and drainage policies will be reviewed at Plan Review stage. There will be flexibility at Local Policies stage to introduce new designations and review existing local designations provided they are underpinned by a sound evidence base.

Appendix A – List of Controlled Reservoirs in Ards and North Down

A Controlled Reservoir is a structure designed or used for collecting and storing water which is capable of holding 10,000 cubic metres or more of water above the natural level of any part of the surrounding land. This includes smaller adjacent reservoirs where water can flow between them and where the combined capacity is 10,000 cubic metres or more above the natural level of any part of the surrounding land.

	Location	Name	Reference No.
1	Holywood	Ballysallagh Lower Constructed c. 1900 for the collection and supply of water for the Bangor area, this is a gated reservoir with controlled access. There are no surfaced paths around the impoundment structure shoreline and the reservoir is used by a local boating club.	X0029_NI
2	Holywood	Ballysallagh Upper Constructed c. 1930 for the collection and supply of water for the Bangor area. It was to supplement and increase the supply of its neighbour, Ballysallagh Lower. This reservoir is also gated with controlled access for the local boating club	X0026_NI
3	Donaghadee	Bridgewater Fishery Relatively recent construction for the purpose of creating a private fishery. There are currently no constructed paths to, from or around this reservoir. Parking is available for angling customers at the nearby farm and reception buildings. Apart from the commercial angling activities, there are no other recreational facilities at this reservoir.	X0321_NI
4	Holywood	Church Road Lower	X0077_NI

		This reservoir was constructed around 1900. It was initially used for water supply but is now in private ownership and run as a commercial fishery. Access to the reservoir is controlled and has been enhanced to encourage anglers with the addition of fishing stands and firm paths.	
5	Holywood	Church Road Upper The reservoir was probably constructed between 1903 and 1931 to supply water to Holywood and district. The reservoir is not open to the public and there are no paths around it.	X0041_NI
6	Bangor	Clandeboye Lake This reservoir was built in 1858, as an ornamental feature of the Clandeboye Estate, on the site of a former quarry. The reservoir remains as an ornamental feature of Clandeboye House garden and there is no public access to it.	X0022_NI
7	Bangor	Clandeboye Reservoir This reservoir was constructed to meet the water needs of agricultural practices at Clandeboye Estate between 1895 and 1939. The reservoir is located on private lands and there is no public access to it.	X0133_NI
8	Bangor	Conlig Lower This reservoir, built in 1858 was used as part of the distribution network for Bangor. Pedestrian access is permitted to the site but there are no surfaced paths. In terms of recreation and leisure, there are walking opportunities in Clandeboye Forest and around the reservoir. Angling, although not promoted, is undertaken at the reservoir.	X0059_NI

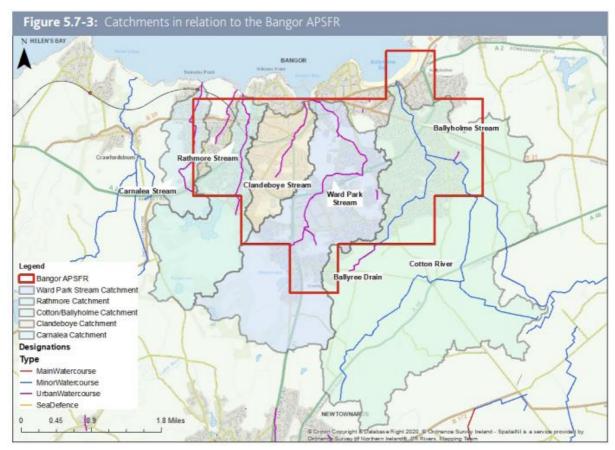
9	Bangor	Conlig Upper As above	X0056_NI
10	Holywood	Creighton's Green This reservoir utilises the site of a former quarry to store water used to supply the Holywood area. It was constructed between 1931 and 1968 and there is no public access to it.	X0028_NI
11	Newtownards	Kiltonga Nature Reserve The exact construction date of this reservoir is unknown, however it is shown on maps dating from 1901. The reservoir is now used exclusively for wildfowl and is popular with walkers and bird-watchers. There is a surfaced footpath around the shoreline of the reservoir and picnic tables and bins are also provided on site. It is accessed via a roadside layby at the edge of the Belfast Road.	X0090_NI
12	Newtownards	Leadmines Date of construction unknown but thought to be spring-fed and supplemented with water pumped from mine shafts to drive machinery associated with the mines between 1849-1864. The site is accessed via hardcore access roads from a large car park at the Somme Heritage Centre. The western shore is part of Clandeboye Golf Course, whilst the northern shore is private farmland. The area immediately downstream is designated as an Area of Special Scientific Interest and there is a windmill stump and chimney nearby – these are designated as historic monuments.	X0320_NI

13	Portaferry	Lough Cowey Originally a natural lough, Lough Cowey is typical of the utilisation of natural water power during early 19th Century, providing motive power for Bishops Corn Mill on the Ballywallon River. The Lough had previously been used to supply water to the Lower Ards Peninsula. The Lough Cowey Road allows access to the southern shoreline where there is a small carpark and slipway for the use of the local angling club.	X0204_NI
14	Greyabbey	Mount Stewart Originally the location of a gravel pit, the site was developed as a pond from 1858, with embankment structure constructed in 1901. The reservoir remains as an ornamental feature of Mount Stewart Gardens which is a popular and well-known tourist destination. Mount Stewart House is a grade A listed building and lies within the immediate inundation area of the reservoir.	X0218_NI
15	Newtownards	Movilla Trout Fishery A relatively recent construction for the purpose of creating a private fishery. There are paths to, from and around this reservoir and parking is available for angling customers.	X0322_NI
16	Ballygowan	Tullyhubbert Pond The reservoir supplied a flax mill that was operational c1851. The reservoir is no longer in use and has become silted. There is no public access to the site, which is located on private land, surrounded by fencing.	X0124_NI
17	Groomsport	Portavoe This reservoir constructed in 1933 by Donaghadee Urban District Council to supply	X0030_NI

		the dwellings in Donaghadee with water. It is now reported as disused. There is an unsurfaced path to two small car parks on the NE tip of the reservoir and there are unsurfaced paths around the shoreline and through the forest area. Fishing stands and jetties have also been erected to improve angling opportunities.	
18	Newtownards	Strangford Lough Wildfowlers Pond This reservoir was constructed prior to 1833 to supply motive power for a corn mill and, in later years a linen mill. It is now used as a wildfowl nature reserve by the owners and access is restricted to members of the Strangford Lough Wildfowlers and Conservation Association or to patrons paying the organisation a fee to fish there.	X0089_NI
19	Bangor	The Warren Pond This reservoir was constructed with the purpose of supplying power to Clandeboye Estate between 1895 and 1939. It is now an ornamental feature of Blackwood golf course and it is through the golf course that access is gained to it.	X0127_NI

Source: Reservoirs in Northern Ireland Information Booklet, Dfl Rivers

Appendix B – Bangor Area of Significant Flood Risk



Source: Second Cycle Flood Risk Management Plan 2021-2027, Dfl Rivers