

## DERRY CITY AND STRABANE COUNCIL DRAFT PLAN STRATEGY

Comments provided by the Department for Infrastructure<sup>36</sup>

### Water and Drainage Policy Division

January 2020

The Department for Infrastructure's (the Department) Water & Drainage Policy Division (WDPD) has reviewed the contents of Derry City and Strabane Council's Draft Plan Strategy and has a number of comments to make on it.

**Soundness Test:** C3 Did the Council take account of policy and guidance issued by the Department?

**Comments:** The Department has previously met with relevant Council officials and presented current policy and legislation on Sustainable Drainage Systems (SuDS), development in proximity to reservoirs and Wastewater Treatment Works (WwTW) capacity constraints. In addition to this, the Department also provided comments on these issues through Council's consultation on the Local Development Plan Preferred Options Paper. **There are a number of issues, highlighted below, which the Council will wish to consider.**

**Soundness Test:** CE4 It is reasonably flexible to enable it to deal with changing circumstances.

**Comments:** The Department would encourage the Council to request further updated information from Northern Ireland Water in respect of all the sewerage networks and wastewater treatment works.

### **Water and Sewerage Infrastructure**

The Department welcomes that the water supply infrastructure and sewerage treatment infrastructure are identified among the main utilities in the local development plan and that the Draft Plan Strategy demonstrates a close working relationship between the Council and NI Water, to help manage the water and sewerage network.

To help inform planning decisions, the Department also welcomes that the Council is mindful of wastewater capacity information provided to the Council by NI Water, to highlight areas where wastewater treatment capacity is limited and/or other network issues, as well as indicating when upgrades of works or the network may occur. Going forward, it will be important that both parties continue to share appropriate information, to help manage future development.

The Department welcomes the Council's approach of encouraging developers to engage with NI Water at an early stage, to discuss development proposals and ascertain if adequate wastewater treatment is available to serve the proposal. This is an important message to convey to help manage future development.

The Department also welcomes that a consideration in the designation of Land Use Policy Areas (LUPA), is an assessment of wastewater capacity and that water and sewerage is a key consideration in delivering sustainable development.

### Sustainable Drainage Systems (SuDS)

Ref.	Current Text	Comments/ suggested amendment
GDP2	x. Working with natural environmental processes through promoting green infrastructure and the use of Sustainable Drainage Systems.	<p>It is noted that Derry and Strabane Council's General Development Principle 2 (Climate Change) x. promotes the use of green infrastructure and SuDS.</p> <p>The placement of SuDS within the climate change Principle would suggest that climate change is the main factor in causing surface water flooding. While SuDS are an effective mitigation measure, by placing SuDS here, there is no emphasise on the impact development has on the issue. Perhaps SuDS would be better placed in GDP1 Sustainable Development or feature in both GDP1 and GDP2</p> <p>It is noted in Evidence Base Paper 25 DCSDC Biodiversity Officer "Cautioned against identifying climate change as the principal factor in flooding and advises, while it certainly impacts on all types flooding, pluvial flooding due to hard surface run off and inadequate hydraulic capacity of the sewage network is the main risk"</p>
GDPOL1	<p>General Development Management Policy</p> <p>(iii) Sustainable drainage systems (SuDS) have been incorporated. Where this preferred drainage method is not feasible, this must also be demonstrated.</p>	It is noted that SuDS feature as the preferred method of drainage in this policy in line with PPS 15.
Pg. 100 Sustainable Drainage Systems	7.106-17.110	It is encouraging to see SuDS detailed within the overall strategy. Please note suggested changes to Annex A paragraphs A16-19 which may impact on information provided in paragraph 7.110

<p><b>FLD3</b> Development and surface water (Pluvial) Flood risk outside Flood Planes</p>	<p>25.58 In carrying out the drainage assessment, the developer should give consideration to the use of SuDS as the preferred drainage solution</p>	<p>It is welcomed that the SuDS are identified as the preferred drainage solution in line with PPS 15.</p>
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**Appendix 4**

Ref	Current Text	Comments/ suggested amendment
A4	Currently there is an automatic right for developers to connect surface water run-off to a surface or combined public sewer.	In 2016 DfI changed the legislation regarding connection to the public sewer network, to provide a new power for NI Water to refuse a surface water connection if alternative means of dealing with surface water have not been considered. These alternative measures can also be landscaping or natural features.
A4	The current uptake of sustainable drainage solutions for new development within Northern Ireland is estimated to be below 5%.	2018/19 figures suggest that approximately 50% of developments requiring Article 161 agreements had SuDS included. These were mainly hard SuDS - attenuation tanks and larger pipes
A5	Sustainable drainage effectively delivers on the three 'pillars' that define the concept, i.e. water quantity, water quality and amenity / biodiversity, as depicted below:	CIRIA guidance would suggest that there are four pillars, not three. Amenity and Biodiversity are separated out. See CIRIA SuDS Manual 2015. Soft SuDS deliver on the four pillars Hard SuDS mainly focus on water quantity.
A11	Developer costs associated with designing and installing a sustainable drainage system are invariably less than with a traditional piped system	This may not necessarily be the case as a SuDS system can include piped drainage. Perhaps it would be more accurate to refer specifically to a soft SuDS system.
A14	Currently, the option of using sustainable drainage to help offset flooding risk or as a more sustainable option to traditional piped drainage is not integral to the planning process. However, legislation is currently being considered within government which will support the implementation of sustainable drainage.	6.118 of the SPPS states that Planning authorities should encourage developers to use sustainable drainage systems (SuDS) as the preferred drainage solution. In 2016 DfI changed the legislation regarding connection to the public sewer network, to provide a new power for NI Water to refuse a surface water connection if alternative means of dealing with surface water have not been considered. No further

		legislation is being considered at this stage.
A16	<p>In June 2011 the Stormwater Management Group (SMG) was set up to implement the recommendations published in the Strategy document. Similar to the initial working party, this group has representation from all relevant government departments and agencies. Key deliverables identified by the SMG to deliver implementation by 2017 are as follows:</p> <p><b>Implementation strategy</b> for sustainable drainage in Northern Ireland;</p> <p><b>Legislation</b> which will enforce sustainable drainage</p> <p><b>Technical guidance</b> for the most effective sustainable drainage systems;</p> <p><b>Approval Body</b> which will assess and approve sustainable drainage proposals for new and retrofit schemes. This body will work closely with the planning authority;</p> <p><b>New Companies</b> will be created to service the new sustainable drainage systems, creating new jobs.</p>	<p>In November 2015, representatives of the SMG provided evidence on SuDS to the Committee for Regional Development in relation to the Water and Sewerage Services Bill. The Committee was supportive of the progress made.</p> <p>To facilitate further progress, participation in the group was extended to include representatives from local government and others. In 2015, the SMG also refocused the priorities of the group.</p> <p>The revised objectives of the Stormwater Management Group are to:</p> <p>Promote clear Planning Policy</p> <p>Consider and develop effective delivery mechanisms and approval processes</p> <p>Review how SuDS (both hard and soft components) are currently delivered in Northern Ireland</p> <p>Develop and promote consistent delivery mechanisms and approval processes.</p>
A19	<p>It is anticipated that the ultimate delivery of sustainable drainage in Northern Ireland along these lines will enable the planning authority to require the use of such systems as part of most development proposals.</p> <p>From the planning perspective, it is imperative that a responsible approval body is in</p>	<p>The Planning authority currently requires the consideration of such systems in line with 6.118 of the SPPS.</p> <p>From the planning perspective, it is imperative that a responsible approval mechanism is in place, either to facilitate meaningful consultation on the sustainable drainage aspects of development proposals or to</p>

	<p>place, either to facilitate meaningful consultation on the sustainable drainage aspects of development proposals or itself to adjudicate on the merits of submitted proposals. Also important are the intended new service companies, as planning permission will not be granted without appropriate guarantees on the management and maintenance of sustainable drainage arrangements so as to ensure they will function effectively over the life of the proposed development.</p>	<p>adjudicate on the merits of the suitability of submitted proposal designs and ongoing maintenance arrangements. . Also important, are appropriate guarantees on the management and maintenance of sustainable drainage arrangements so as to ensure that they will function effectively over the life of the proposed development.</p>
<b>Evidence Base Paper EVB 25 – Development and Flooding</b>		
2.17	<p>Clause 4 of the Act provides a definition of sustainable drainage systems for dealing with surface water from premises and provides the power to adopt specified SuDS structures.</p> <p><del>It places a requirement for SuDS to be considered and constructed where appropriate and for NI Water to refuse surface water.</del></p>	<p>Suggest replacing the 2<sup>nd</sup> sentence with “The Act provides a new power for NI Water to refuse a surface water connection if alternative means of dealing with surface water have not been considered”.</p>
2.19	<p>For certain SuDS structures, NI Water requires compliance <del>NI Water will accept the</del> with design standards based on the CIRIA SuDS Manual C753 published in November 2015. It covers the planning, design, construction and maintenance of Sustainable Drainage Systems (SuDS) to assist with their effective implementation within both new and existing developments.</p>	<p>Further detail on certain SuDS structures is available from NI Water’s website under Services for Developers.</p>

## **Evidence Base Paper EVB 25 – Development and Flooding**

### National and European Obligations (Page 4, Para. 2.6)

Flood risk and hazard maps were published under this directive in 2013, and have been updated since. The first PFRA was published in 2011 and the second in 2018 ~~but was~~ (revised in 2019). The first FRMPs were produced in 2015. Consultation on a draft timetable for the preparation of the NI FRMP 2021 – 2027 closed in June 2019. Further detail on each of these documents can be found in section 3 of this evidence base.

- Para 3.18, Line 5 - 'Rivers Agency' is now 'DfI Rivers'
- P31 4.3 & P34 6.2 - 'Dept. for Infrastructure' is the Competent authority for Floods Directive implementation, NOT 'DfI Rivers'.
- P76 - DfI Guidance on Climate change Para1 – “DfI Water and Drainage Policy Division will shortly release new technical guidance in relation to allowances for Climate Change in Northern Ireland” - This text in 1st para is not correct. This Guidance was published in Feb 2019. It has been correctly referred to earlier in the document starting on P14 Para 2.47.
- P76 - DfI Guidance on Climate change Para2 – “Climate change flood maps will move from 2030 Epoch to 2080 Epoch” delete 'will move' as the Guidance was published in Feb 2019 e.g. change text to “Climate Change Flood Mapping is based on allowances for 2080s epoch” or similar.

### **Living with Water Programme**

Whilst the area covered by the Derry and Strabane Draft Plan Strategy falls outside of the geographical scope of the Living With Water Programme (LWWP), the core objectives of the LWWP, are to provide the drainage and wastewater treatment infrastructure needed to protect our towns and cities from flooding, enhance the environment and enable economic growth. Whilst primarily focused on the Belfast area to start with, the LWWP will be producing an Integrated Drainage Investment Planning Guide for Northern Ireland.

This guide will include an integrated approach to water and drainage management throughout the catchment area and involves developing localised and integrated drainage solutions whilst promoting Blue and Green infrastructure where possible.

The NI Flood Risk Assessment 2018 identified Derry as one of 12 Areas of Potential Significant Flood Risk (APSFR). The council should give consideration to using blue and green infrastructure as well as traditional engineering methods, to manage water and drainage throughout the catchment in an effort to reduce the risk of flooding, particularly from surface water.

## 22. Coastal Development

CD1 - Coastal Development

P341, 22.8 - suggest adding additional text as outlined below.

The Council will require the protection or enhancement of the District's coastal area and seascape. Development proposals must comply with NE 1 and should not have an unacceptable effect, either directly, indirectly, or cumulatively, on the coastal area and its setting. Development will not normally be permitted in areas of the coast known to be at risk from flooding including areas **which may become at risk from rising sea levels due to Climate Change**, coastal erosion or land instability. Development proposals will also be assessed against the UK Marine Policy Statement (MPS) and any adopted Marine Plan.

Justification and Amplification

P343, 22.13 - suggest adding additional text as outlined below.

The Council will require all relevant proposals to clearly demonstrate how they will protect or enhance the coastal zone, in terms of natural / historic environment, biodiversity, water quality, and amenity value. Proposals must also indicate how they accord with the relevant Marine legislation and the Marine Plan for NI (when adopted). In addition, all proposals must consider the potential implications of environmental change, including rising sea levels **due to climate change** and flood risk, and demonstrate appropriate measures to address these issues.

## 25. Development and Flooding

Context

P376, 25.2 - As competent authority for Flood Directive implementation, 'DfI' identified the APSFRs so 'Rivers' should be deleted.

The four main sources of flooding are fluvial (river), coastal, pluvial (surface water) and water impoundment (reservoir) breach or failure. There is the potential for occurrences of all four sources within / adjoining the District. There have been substantial instances of flooding in Derry and at the edge of the city in Drumahoe, as well as Strabane, Eglinton and Clady in recent years. Derry has been identified by DfI **Rivers** as an Area of Potential Significant Flood Risk (APSFR) and Strabane as a Transitional Area of Potential Significant Flood Risk (TAPSFR).

P377, 25.5 - suggest additional text as outlined below to reinforce the necessity to discourage development in climate change flood plains.

and infrastructure outside the flood risk area and avoid zoning land for development that would be at risk of flooding **now or which may become at risk due to climate change**.

P377, 25.6 - suggest additional text as outlined below

The LDP has a wider objective to ensure flood avoidance and management. In line with the SPPS the LDP will not bring forward sites or zone land that may be susceptible to flooding, now or in the future **due to climate change**.

P378, 25.12 - suggest additional text as outlined below

The Council's LDP Strategy for Development and Flooding, in accordance with the above documents, is to have a precautionary approach to development within flood-prone areas **including those areas which may become at risk due to climate change**. Our policy approach will be to avoid inappropriate development within areas of flood risk and areas that may increase flooding elsewhere, protect our key assets from risk of flooding and to minimise and manage the risk of flooding. This LDP will be in line with regional policy whereby only suitable types of development will be permitted across our District, to align with the Strategic Growth Plan and the Council's emerging Climate Change Adaptation Plan.

#### Policies for Flooding and Development

##### FLD1 Development in Fluvial (River) And Coastal Flood Plains

P379, Exceptions Defended Areas – in respect of the text below, is there any allowance for Climate Change in the assessment of adequacy of flood defences?

(a) Development of previously developed land protected by flood defences that are confirmed by DfI Rivers, as the competent authority, as structurally adequate and provide a minimum standard of 1 in 100 year fluvial or 1 in 200 year coastal flood protection.

#### Definition of a Flood Plain

P381 – in respect of the text below, it should be made clear in the definition of floodplains that they are to include Climate Change floodplain – this is in line with the DfI's 'Technical Flood Risk Guidance in relation to Plus Allowances for Climate Change in Northern Ireland'

25.16 For planning purposes, taking into account climate change predictions based on available scientific evidence, the design limits of flood plains are currently defined as follows:

- River (Fluvial) Flood Plain – the extent of a flood event with a 1 in 100 year probability (or 1% annual probability) of exceeding the peak floodwater level.

25.17 A coastal flood plain is a generally flat area adjacent to the shoreline where water flows in time of flooding, attributed to the combination of high tide levels, surge, wave action and sea level rise or would flow but for the presence of coastal flood defences.

- Coastal (Tidal) Flood Plain – the extent of a flood event with a 1 in 200 year probability (or 0.5% annual probability) of exceeding the peak floodwater level.

#### Defended Areas

P382 - The paragraph below is NOT correct. 'Freeboard' is an allowance for uncertainty in the design parameters used in determining design flows or water levels e.g. predicted astronomic tide, storm surge effects, wave / fetch effects or local topographic effects. 'Freeboard' does NOT include any allowance for Climate Change; this needs to be added / allowed for separately from 'Freeboard'. See DfI's 'Technical Flood Risk Guidance in relation to Allowances for Climate Change in Northern Ireland'.

25.27 The height of a flood defence to top level should include an allowance for freeboard. This is normally between 300mm – 600mm above the design flood level to accommodate factors such as wave action, storm surge and climate change.



P383 In respect of the paragraph below, development in the vicinity of flood defences needs particularly to take account of the requirement for the statutory authority to have working space for maintenance and potential reconstruction of existing defences. This should be included in text or include reference to FLD2 and Paras 25.50 – 25.52.

25.29 Development close to flood defences will be resisted as such land will often be low lying and therefore the most susceptible to flooding. Also, it may need to be available for temporary flood storage in a flood event. Before progressing proposals in proximity to flood defences, developers are advised to seek guidance from DfI Rivers on acceptable separation distances.

#### Flood Management and Mitigation Measures

P389 - Please see suggested amendments below as per latest estimate from NI Flood Risk Assessment 2018.

25.56 The Flood Maps (NI) include information on surface water flood risk, a strategic level assessment that gives an indication of the likelihood of pluvial flooding. Nevertheless, the map indicates that approximately 24,500 or around 3% of the properties in Northern Ireland are sited in areas shown to be at risk of flooding from a medium probability (1 in 200 year (0.5% AEP)) pluvial event with a depth greater than 300 mm, albeit that many of these properties would already be at risk from fluvial and / or coastal flooding. As a consequence of the predicted increase in the frequency and intensity of extreme rainfall events due to climate change, urban areas are susceptible to an increasing risk of this type of flooding.

#### FLD 4 Artificial Modification of Watercourses

P391 - In respect of the sentence below, is there a need to include reference to DAERA and information on formal processes (e.g. EIA) to assess effects of proposed development on environmentally designated sites and obtain relevant approvals?

The Council will discourage culverting or modification of watercourses in a SPA, SAC, Ramsar sites and supporting habitat.

### Appendix 4 – Development and Flooding Annexes

#### Annex A – Sustainable Drainage

##### Development and Drainage

P481 - suggest additional text as outlined below

A1 The use of properly designed sustainable drainage (SuDS), particularly for new developments, will provide drainage solutions while not adding more pressure to the existing drainage network.

##### Benefits of Sustainable Drainage

P483, A8 Flood Risk Management Benefits

In respect of the wording below, the text is incorrect. SuDS are designed to particular standards just the same as traditional drainage systems and so do not necessarily offer a greater degree of flood protection i.e. they are designed to provide a particular level of

protection as are pipes or open watercourses. SuDS are preferable because of their control of run-off at source, for their environmental, economic and other benefits.

A8 “sustainable drainage systems will provide more drainage capacity and will incorporate a design capacity considerably greater than traditional pipes. Accordingly, they offer greater flood protection”.

What information should be in a Flood Risk Assessment?

P489, B6 - suggest additional text as outlined below

- A plan of the site showing the extent of the predicted Q100 / Q200 flood plain **including Climate Change**, and / or in the case of a reservoir, the extent of the predicted flood inundation area. This may require a local hydraulic model based on the topographical information, historical flood events and the assessment of design flow discharges at the site using industry standard methodologies.

P489, B7 - suggest additional text as outlined below

A plan of the site showing the extent of the predicted Q100 / Q200 flood plain (**including Climate Change**) and / or in the case of a reservoir, the extent of the predicted flood inundation area. This will involve the production of hydraulic models requiring longitudinal / cross sections of the watercourse and the site, assessment of flood discharges using industry standard methodologies, and the inclusion of information such as finished floor levels, access road and car park levels, estimated flood water levels, flood depths and velocities and associated probability of flooding;

When is a Drainage Assessment required?

P492, B15 - suggest additional text as outlined below

Policy FLD 3 of this chapter requires a Drainage Assessment to be submitted to the planning authority along with the planning application, for development proposals located outside the fluvial and / or coastal flood plain **including Climate Change**, in any of the following circumstances:

Annex: Flood Proofing - Resistance and Resilience Construction

P494, C1 - suggest additional text as outlined below

The primary aim of planning policy on flood risk is to avoid new development in areas known to be at risk of flooding **or which may become at risk due to climate change**.