



**Northern Ireland
Assembly**

COMMITTEE FOR REGIONAL DEVELOPMENT

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Organisation (if applicable): Fresh Water Taskforce

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The Northern Ireland Freshwater Taskforce (FWTF) represents a range of organisations working together to ensure that Northern Ireland preserves and improves freshwater ecosystems by encouraging Government and wider society to adopt a sustainable and integrated approach to water management.

Northern Ireland has a wealth of natural water resources and water is an essential component of healthy, functioning ecosystems. However, water habitats, and much of the wildlife that rely upon them, are under increasing pressure from abstraction, drainage, development and pollution. The Freshwater Taskforce (FWTF) is pleased to have the opportunity to comment on this important amendment of Primary Legislation for Northern Ireland (NI).

The FWTF believes that the Water and Sewerage Bill must ensure that any development of Northern Ireland's water resources is done in a sustainable manner. It is imperative that Northern Ireland leads by example in its management of water resources. Safeguarding the natural environment, meeting Water Framework Directive objectives, cutting water leakage and minimising carbon emissions from water industry operations are all crucial.

The FWTF is pleased to see Sustainable Urban Drainage Systems (SUDS) given legislative

footing. The FWTF has long supported the aims and objectives of the SUDS strategy in NI and are happy to see this approach being given a legislative push. The FWTF is concerned however that the legislation only covers hard engineered solutions to SUDS as detailed below;

Paragraphs 15 and 20

2. After Article 2(3B) (inserted by section 4) insert—

“(3C) In this Order—

(a) references to a sustainable drainage system include references to a tunnel or conduit which serves or is to serve as the system in question or part of it, and to any machinery or equipment of the system, and

(b) accordingly, references to the construction of a sustainable drainage system include references to the construction of such a tunnel or conduit and to the construction or installation of any such machinery or equipment.”.

Although the FWTF support this approach, we believe it is a missed opportunity to not include **natural solutions** as well as hard engineered solutions. This, we believe, would ensure the bill is truly sustainable.

Significant research has been carried out to understand the impacts of climate change on urban hydrology (coming from combined work of those carrying out downscaled climate projections and hydrological modelling). This work suggests that prolonged and intense winter precipitation will result in increased output of surface runoff, throughflow, groundwater flow, and river and marine outfalls. Even in summer, surface runoff is expected to increase as a result of climate change (linked to the intensity of late summer rainfall events associated with increased convective activity). We would stress that in all flooding scenarios, natural functions and processes should be given space to work. Nature buffers against flooding more effectively than man-made infrastructure, therefore we should seek to work with nature and not against it – by this we mean allowing natural processes to work unhindered by societal encroachment.

The FWTF understanding of SUDS is to seek to manage rainfall in a way similar to natural processes, by using the landscape to control the flow and volume of surface water, prevent or reduce pollution downstream of development and promote recharging of groundwater. ‘Green Infrastructure’, including natural vegetation, in SuDS helps attenuate flows, trap silts and pollutants, promotes infiltration and be robust enough to prevent erosion. It also enhances evapotranspiration and reduces the heat island effect in urban areas. The change

from conventional piped drainage to SuDS has been driven by a realisation of the shortcomings of traditional methods of collecting and conveying runoff away from developed land. Just as in nature, water begins a journey when it enters the SuDS sequence. Starting with a roof and ending with a wetland, every stage offers potential for people and wildlife benefits. The FWTF do not see an equivalent approach outlined in legislation and believe this to be a missed opportunity.

Designing SUDS to deliver more than just surface water management will very much depend on early consideration at the master planning stage, creativity, consultation and partnership. Done properly, they can deliver benefits for the whole community in terms of biodiversity, climate regulation, regeneration, learning, health recreation and play. Those local authorities in England and Wales leading the way in linking the requirement for SUDS to meet the objectives of wider social and environmental policy have understood this to be a cost effective way of delivering sustainable, resilient communities in urban areas. One such example is that of Stebonheath Primary School, Llanelli Wales. The Stebonheath Primary School scheme¹ is part of Dwr Cymru Welsh Water's strategy to manage surface water entering the combined sewer network across the Llanelli area. The scheme was constructed during the summer holidays in 2013 and was officially opened in November 2013. The scheme was in part designed by the school pupils who were then able to learn about hydrology through the school curriculum. A local example is that of the Connswater Community Greenway, which delivers multiple benefits (include runoff attenuation, health and recreation, carbon sequestration, shared space) for society delivered through Green Infrastructure.

The FWTF therefore recommend an amendment which puts natural solutions on the same legislative footing to hard engineered solutions. Thus:

Paragraphs 15 and 20

2. After Article 2(3B) (inserted by section 4) insert—

“(3C) In this Order—

(a) references to a sustainable drainage system include references to a tunnel or conduit which serves or is to serve as the system in question or part of it, to any machinery or equipment of the system, **and to the design and intentional use of Green Infrastructure in**

¹ <http://www.sudswales.com/suds/tebonheath-primary-school-llanelli/>

the management of runoff, and

(b) accordingly, references to the construction of a sustainable drainage system include references to the construction of such a tunnel or conduit and to the construction or installation of any such machinery or equipment, or any works associated with Green Infrastructure development for the purposes of runoff management.”.

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