

# Landscape Institute Northern Ireland

## **Revised Draft Planning Policy Statement 15 (PPS15):**

### **Planning and Flood Risk**

Public Consultation by Department of Environment (DOE).

Response of the **Landscape Institute Northern Ireland (LINI)**.

10 January 2014

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The Landscape Institute is the chartered institute in the United Kingdom for Landscape Architects, incorporating Designers, Managers, and Scientists, concerned with conserving and enhancing the environment. The Landscape Institute promotes the highest standards in the practice of landscape planning, design, management and research, and represents members in private practice, at all levels of government and government agencies, in academic institutions and in commercial organisations. The Landscape Institute is an educational charity and chartered body whose purpose is to protect, conserve and enhance the natural and built environment for the benefit of the public. It champions well-designed and well-managed urban and rural landscape. The Landscape Institute's accreditation and professional procedures ensure that the designers, managers and scientists who make up the landscape architecture profession work to the highest standards. Its advocacy and education programmes promote the landscape architecture profession as one which focuses on design, environment and community in order to inspire great places where people want to live, work and visit. The Landscape Institute is committed to the principles of sustainable development by improving the quality of design of urban and rural environments and to the protection and enhancement of our physical and natural environments. The Landscape Institute Northern Ireland branch (LINI) represents the professional membership within Northern Ireland and is particularly concerned with design, management and planning for the protection, conservation and enhancement of the natural and built environment of Northern Ireland.

### **Background Comments**

There is little surprise that many parts of the UK and Ireland continue to face devastation caused by flooding. It would appear that we are still no closer to a comprehensive and integrated approach to water management.

#### **SUDS.**

Despite their proven ability to provide benefits for water quality, amenity, and biodiversity at the same time as attenuating storm water, Sustainable Drainage Systems (SuDs) continue to be a largely voluntary / advisory option. Implementing SuDS and in particular 'Soft SuDS' is a simple and relatively inexpensive way to protect ourselves from flooding. We need more integrated thinking in relation to water management, identifying solutions from source to sea within our defined water catchments. We need to look closely at our natural systems to identify solutions to this problem beyond the obviously identified flood risk areas.

#### **ALL AREAS, ALL DEVELOPMENT.**

It is essential that this document places significant emphasis on planning outwith known Flood Risk Areas. There are of course complex considerations and reasons for flooding, LINI also accept that there continues to be development pressure to within known flood risk areas, however we are not convinced there are any acceptable cases for development within known flood risk sites.

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It would be interesting to consider how many proposed developments within Flood Risk Areas would reach application stage should Local Authorities have the right to seek Bonds from developers on such sites.

Water management needs to look at opportunities and incentives for 'upstream' retention not simply building and protecting further defences where there are already clear problems – Raising the defence walls higher might offer a short term solution but it is not the answer to this problem.

## INTEGRATION

SuDS mimic nature by absorbing water into vegetated surfaces. They slow down water and prevent flooding as well as supporting greater biodiversity and prevent the surges of water through villages and towns as we have seen in recent years. They are not a universal panacea, and extreme events will still occur, but they could make a really significant contribution towards reducing the problems we continue to experience, whilst making our towns and cities more pleasant places to live.

Dealing with surface water in a comprehensive and integrated fashion ought to be driven through this policy document. We need to start using SuDS on all new developments, and embark on a programme of retrofitting SuDS in our existing towns and cities. Engineering and soft landscape must work together, even though there are some in the professions who remain sceptical.

### **The role of vegetation, open space and soil absorption capacity.**

LINI is particularly concerned about the lack of consideration by the policy regarding the impact of both soil moisture levels and forest / greenspace. Beyond intensity and duration of rainfall, soil saturation is likely to be the most significant determining factor causing flooding (and is not mentioned within the draft PPS15). The fact that we are seeing (and expect to see) an increase in prolonged wet spells during winter sets up the conditions for flooding as the season progresses.

Relating to vegetation and open green space (or conversely, deforestation and impermeable paved surfaces), it is well understood that large areas of vegetation cover decrease the severity and extent of flooding (an ecosystem service that would otherwise be a significant cost to society). Thus, risk of flooding increases as green areas are reduced. Trees specifically slow down the rate at which rainfall reaches the ground surface, allowing soil infiltration to take place over a longer period of time. Green infrastructure networks should form a part of any city's spatial plan. LINI directs the Department to research evidence provided by the Tree Design and Action Group (TDAG).

LINI also requests that PPS15 emphasises further that development plans recognise the potential benefit of open space and vegetation in water management and designate such sites in a connected manner within a water catchment area. Additionally, it is well documented that vegetation and green open space provide multiple additional benefits beyond flood prevention measures. Soft planted, green drainage schemes cost less whilst increasing property values and providing multiple benefits like increased biodiversity, better air and water quality, improved public health and enhanced land value. "It's a simpler solution that's easier to maintain; you get pollutants broken down free of charge by vegetation, you get amenity value that improves people's quality of lives, you help to improve biodiversity, you also get the benefit that in heatwaves the open areas of water help to cool down the surrounding land. It helps with flood prevention, but it also gives so much more to society than just holding the water in a tank. "  
(Susdrain, CIRIA)

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# Landscape Institute Northern Ireland

## Policy Objectives

LINI welcomes the opportunity to consider and respond to the Public Consultation by Department of Environment (DOE) on the Revised Draft Planning Policy Statement 15 (PPS15) Planning and Flood Risk.

As a caution however, evidence reveals that Flood Risk and Water Management are entirely interrelated, and LINI considers that it is detrimental to discuss and prepare policy for one of these aspects without integrated inclusion addressing the other. Our environment, built and natural, is an interconnected process, of which the wellbeing of any particular element is dependent on the quality and beneficial functioning of all elements and systems (assets and their connectivity) at all scales.

In terms of holistic awareness, LINI commends the Departments in the general comprehensiveness of its commentary accompanying the policies and included within the Annexes of the document, however we are greatly concerned that the integrated consideration of much of this content is not directly reflected in the policies themselves. There is little point preparing a consultation document which provides good background and practice advice only to avoid embedding it into policy.

(Para 1.7) It is stated that the PRIMARY AIM OF THE POLICY is 'to prevent future development that may be at risk from flooding, or that may increase the risk of flooding elsewhere'. LINI requests that the Policy aim be restated as 'to require or encourage future development both within and beyond flood risk areas to seek to reduce risk of flooding, both to itself and its site, and to development and sites elsewhere'. This restatement places the onus of 'responsibility' on everyone to improve conditions, create a better environment, and adapt to change, ie, the policy should be a positive means of promoting good practice. LINI attests that the planning system is obliged not just to 'protect' people and property from flood risk, but actually it should be a system which encourages and requires adaptive water management practices to reduce flood risk generally.

(Sect 3) Relating to the POLICY OBJECTIVES, LINI would suggest that these are reordered such that those which are priority objectives are listed first, and those that relate to operational matters are listed second. These four should precede the others.

1. promote sustainable development through the retention and restoration of natural flood plains and natural watercourses as a form of flood alleviation and an important environmental and social resource;
2. promote sustainable development through encouraging the use of sustainable stormwater management for the drainage of new development;
3. promote public awareness and responsibility regarding of flood risk and the flood risk information that is available and of relevance to undertaking development;
4. promote an integrated and sustainable approach to the management of development and flood risk which contributes to:
  - more secure, efficient, beneficial and productive development (text inserted by LINI)
  - the safety and wellbeing of everyone;
  - the prudent and efficient use of economic resources; and
  - the conservation and enhancement of biodiversity

(Sect 5) LINI is glad that the Policy recognises that water management / flood risk is a material consideration in the determination of planning applications.

## **Policies of draft revised PPS15**

LINI suggest an OVERARCHING PRIMARY POLICY, to be inserted before the 5 policies proposed in the draft revised PPS15.

- LINI requests that there should be a presumption against any development both within and outside flood risk areas which increases the risk of flooding either within or outside those flood risk areas. ie. All development must accept responsibility for water management and aim to reduce flood risk / provide measures which benefit water management generally, whether or not they are within flood risk areas.
- As stated in Annex C, LINI requests that the policy require all development to attempt to reduce flood risk by implementing environmentally positive water management features. All development plans should be based on a Green Infrastructure strategy which includes sustainable water management, seeking the connectivity of proposed developments and recognising the ability of one development to benefit another through water management.
- It should be a requirement for all development to adopt Water Sensitive Urban Design, not just development in flood risk areas. Water Sensitive Urban Design actively seeks to reduce flood risk, not just minimise impact to flood risk. This practice is as stated in the DRD Long Term Water Strategy for NI which requires an integrated approach to water management within water catchment areas: to promote development without compromising the environment or increasing flood risk.
- (sect 4, para 4.10) (and sect 6, para 6.34) LINI stresses by this additional policy that any development in any location that increases flood risk in any other location should be avoided. It should be a requirement of all development aim to reduce, or at least not increase, flood risk generally.
- (sect 4 para 4.5) LINI emphasises that just as it is essential and responsible behaviour for the development of each site to consider its water management in interaction with and for the benefit of the environment outside its boundary, it is essential that Development Plans consider the implications of water management beyond their administrative boundaries
- Para C21. LINI firmly attests that Northern Ireland must be brought into line with the rest of the United Kingdom relating to stormwater management.
- Awareness that all developments generally contribute to the creation of flood risk areas, either on their own site, or certainly elsewhere. Recognition that all development / all developers / all persons and organisations have responsibility and should have ambition to reduce the size of flood risk areas, and the severity of flood risk within those areas.

LINI considers that the 5 proposed policies of the draft revised PPS15 should be restated as follows.

### Policy FLD 1. Development in River and Coastal Flood Plains.

- LINI requests that this is reworded to state that development will not be permitted unless the development demonstrates that at worst it will not add to effect and preferably reduce flood risk generally. This applies to the listed exceptions also. LINI requests that exception (b) is removed as raising development above a floodplain by infilling causes negative water management problems

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and is unacceptable.

- LINI warns against short term economic gain which causes long term economic detriment. Likewise, LINI advises that increased building and repeat repairing of flood defences is unsustainable long term, and the policy should seek managed retreat from known flood risk areas. Increased flood protection and maintenance of ability to defend against flood risk should be through 'soft' landscape, green infrastructure proposals, rather than 'hard' infrastructure protection.

#### Policy FLD 2. Protection of Flood Defence and drainage infrastructure.

- LINI requests that this policy state a commitment towards 'soft' flood defence mechanisms and drainage infrastructure, such that as hard defences and infrastructure require repair and replacement they will be incrementally replaced where possible by soft measures.
- Unless we start a comprehensive programme of retro-fitting SuDS alongside larger scale catchment management programmes and flood defences, the problems will continue to get worse.

#### Policy FLD 3. Development outside Flood Plains but in areas with Surface Water Flood Risk.

- LINI requests that the Drainage Assessment / Statement should be required for 'ALL NEW DEVELOPMENT, (including one off housing and permitted development) not just areas with 'Surface water flood risk'  
All development contributes to increased run off and down stream flooding therefore all development should demonstrate =consideration of water management.  
The policy should highlight that some new development outside known flood risk areas may offer measurable benefits down stream, therefore if offered and deliver through a development application could be considered as positive 'planning gain'.  
LINI asks that the Drainage Assessment be required to demonstrate how a scheme will reduce flood risk in the catchment area generally, not just mitigate flood risk to the proposed development or caused by the development.
- LINI believe that each authority should adopt a Green Infrastructure (GI) approach to Managing Water and Flood Risk and those authorities within a particular water catchment should collaborate to deliver joint GI strategies.
- LINI stresses the importance of vegetation and open green spaces in water management, and requests that the policy actively presumes against development which reduces the number, size and ability of such assets to operate for beneficial water management. Equally, the policy should actively seek to promote development that increases the number, size and ability of such assets to act for beneficial water management.
- (Para 6.36). LINI requests that development should avoid flood risk areas, unless its design actively and positively reduces the flood risk in those areas.
- (para 6.37). LINI welcomes the statement that SUDS is the preferred drainage solution, and requests that this is firmly stated within the policy itself. A rewording of the policy is suggested.

#### Policy FLD 4. Artificial Modification of Water Courses.

- LINI requests that this policy is reworded to state that the department will only accept artificial modification of a watercourse where it is a positive means to reduce flood risk, not just on site, but as a responsible operating part of the entire water catchment area. The design of SUDS will

# Landscape Institute Northern Ireland

always be preferred.

- As stated in paragraph 6.48 'culverting and canalisation are generally considered to be environmentally unsustainable'. Whether long or short, they are always detrimental to flood risk in a water catchment area and should not be permitted, except where 'offset' by water management design to accommodate the increased flood risk caused.
- (Para 6.50) LINI requests that the statement that 'all new development should aim to be in harmony with the water environment' is an explicit requirement of the policy.
- (Para 6.50) LINI requests that the statement that 'the removal of culverts and the reintroduction of the natural watercourses should be encouraged' is an explicit requirement of the policy.
- (Para 6.51) LINI requests that the affirmation that the use of 'SUDS solutions by negating site discharges will reduce the need for flood alleviation / culverting works downstream' is prioritised in the policy.

## Policy FLD 5 Development in areas of potential reservoir inundation.

- LINI seeks rewording of this policy to state: 'New development will not be permitted within the potential inundation zone of a reservoir, except if it positively aims to reduce the impact of the potential inundation'.

## **Integrated Governance for Water Management (including flood risk).**

LINI are glad to learn of INTEGRATED GOVERNMENT ACTION relating to Stormwater Management.

- Flood risk and water management policies actions and processes need to:
  - Be integrated
  - Extend beyond current flood risk areas
  - 'soft' SUDS measures
  - part of Green Infrastructure strategy which is part of local development plan.
- (para 2.13) LINI is pleased to learn of the establishment of an interdepartmental / agency Stormwater Management Group and would be interested to know how comprehensive this group is. LINI emphasises that all departments must understand their obligations to reduce or improve flood risk conditions, and hopes that the group includes all agencies and departments, and not just those with a remit relating to water management. LINI would be interested in participating in this Stormwater Management Group and would welcome further correspondence in this matter.
- Para 2.15. Similarly LINI would state that the proposed Flood Bill for Northern Ireland must include responsibility for all bodies, not just those 'which have a role in FRM'.
- Annex C: Sustainable stormwater management. Para C4. States that 'currently there is an automatic right for developers to connect surface water run-off to a surface or combined public sewer'. Para C20 states that in England and Wales legislation removes this right and 'makes SUDS a requirement for most new development schemes'. LINI suggests that the automatic right of connection to a public utility system be removed urgently, and that Policy PPS15 must make SUDS a requirement in Northern Ireland in all circumstances. LINI is glad to see the inclusion of economic reasons for adopting a SUDS approach in para C15.

## **Further Information and resources.**

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# Landscape Institute Northern Ireland

LINI particularly wishes to bring the following documents to the attention of the department:

- Landscape Institute Position Statement on Green Infrastructure (2013) available at <http://www.landscapeinstitute.org/policy/GreenInfrastructure.php>
- Landscape Institute Briefing Note on Landscape and Water available at [http://www.landscapeinstitute.org/knowledge/Landscapeandwater.php?dm\\_i=10AE,228CJ,5A52NV,7FNAO,1](http://www.landscapeinstitute.org/knowledge/Landscapeandwater.php?dm_i=10AE,228CJ,5A52NV,7FNAO,1)
- Trees and Design Action Group (TDAG) publications 'No Trees No Future' (2008) and 'Trees in the Townscape: a guide for decision makers' (2012) available at <http://www.tdag.org.uk/downloads.html>
- 'Water Sensitive Urban Design: ideas for built environment practitioners' produced by CIRIA in 2013

The Landscape Institute Northern Ireland branch would like to thank the Department of the Environment for the opportunity to contribute to the Planning and Flood Risk draft Revised PPS15 Planning Policy Statement. Water Management is a core concern of the Landscape Institute, and LINI would particularly welcome further consultation and discussion relating to this response.

For further communication and future consultations, please contact:

The Chairman,

**Landscape Institute Northern Ireland**

c/o PLACE Built Environment Centre, 11 Rosemary Street, Belfast BT1 1QF

[www.landscapeinstitute.org/northernireland/](http://www.landscapeinstitute.org/northernireland/)

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*Prepared for Landscape Institute Northern Ireland (LINI) by Emily Smyth CMLI (Chair LINI) and Pete Mullin CMLI (Landscape Institute Policy Consultant for Northern Ireland).*