

Rivers Agency is a Division of Department of Agriculture and Rural Development

We are the **STATUTORY flood defence and drainage authority for Northern Ireland**

Our vision is

To **manage flood risk for the**

SOCIAL, ECONOMIC AND ENVIRONMENTAL development of Northern Ireland

Our aims are to

REDUCE RISK TO LIFE AND PROPERTY FROM FLOODING

And to do so in a

SUSTAINABLE MANNER

A few words about flooding....

- Natural phenomena
- Part of the natural life cycle of a river & the sea
- Flooding cannot entirely be avoided

But we can manage the risks

Flood Risk Management

Protection
Flood Alleviation Schemes

Preparedness
Flood Warning
Flood Emergency Response
Flood Proofing
Flood Risk Communication

Prevention
Land Use Planning

A map of Europe with twelve yellow stars arranged in a circle, similar to the European Union flag, overlaid on the map.

This slide summarises flood risk management

Protection, Preparedness and Prevention, the 3 Ps

This approach is endorsed by the European Union Floods Directive which is a very significant piece of Legislation for Rivers Agency

Prevention is our link to spatial planning

And thus to

Our role in the planning process



The old saying goes

“A picture is worth 1000 words”

The message here is:

Don't build in flood plains or flood-prone areas.

Prevention through spatial planning is the most cost-effective method of flood risk management.

Development Control - individual planning applications

We are the interface between Rivers Agency and the Planning Authority.

We advise on any development where there is a potential flood risk to:

- The proposed development.
- Property elsewhere caused by the proposed development.

Planning Advisory Unit is the interface between Rivers Agency and the Planning Authority

We advise on flood risk to proposed development

And, importantly, we also advise on

Flood risk that may be caused elsewhere by a given development

This is known as

UPSTREAM or DOWNSTREAM worsening

Area Development Plans

Rivers Agency is a Consultee.

We provide advice on the suitability of land for development with respect to flood risk.

- Extent of flood risk
- Mitigation of flood risk.
- Sustainable drainage systems.
- Resistance measures against flooding.
- Resilience measures to reduce the impact after flooding occurs.

We are a consultee for area development plans

We advise on the suitability of land for development with respect to flood risk

Typical advice given would be:

- **Flood extents, depth, velocity and levels**
- **Mitigation measures**
- **Sustainable Drainage Systems**
- **Resistance**
- **Resilience**

I will talk a bit more about Resistance and Resilience

Resistance is stopping the ingress of flood water into buildings

Typical measures on new builds

- **raise floor levels to above predicted flood levels**

Typical retro-fit options include

- **Demountable flood guards over doors**
- **Air brick covers**
- **Non-return valves on sewers**

Resilience is being able to bring a building back into operation quickly after a flood with minimum damage and cost.

This requires waterproof building materials.

A very simple example is to use concrete floors with ceramic tiles rather than timber-suspended floors with carpets.

Basis of Our Advice

Policy - PPS 15 Planning & Flood Risk

Information - Flood Maps

Planning Policy Statement 15: Planning and Flood Risk


Introduced in 2006 & just reviewed.

Aim of PPS 15:

To prevent inappropriate development in areas known to be at risk of flooding, or that may increase flood risk elsewhere.

Key Principle of PPS 15:

A precautionary approach to flooding.

The image shows the cover of the Planning Policy Statement 15 document. It features a green background with a white circular logo containing the word 'Planning' and a stylized tree. Below the logo, the text reads 'Planning Policy Statement 15 (PPS 15)' and 'Planning and Flood Risk'.

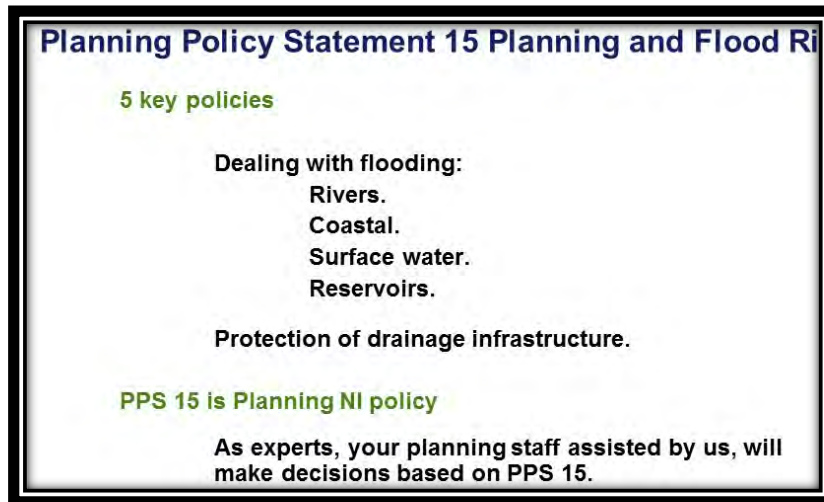
Introduced in 2006 & just reviewed.

We are now using the revised version.

The aim of PPS 15 is very simple:

To prevent development in areas known to be at risk of flooding, or importantly, that may increase flood risk elsewhere.

Key Principle of PPS 15 is that it adopts a precautionary approach to flooding.



PPS 15 has 5 key policies that deal with flooding from Rivers, Coastal, Reservoirs and Surface water – I will talk about this in more detail shortly

Its policies also allow for the protection of drainage infrastructure.

This is to allow for the maintenance and functioning of our flood defences and culvert, for example

We ask for a minimum 5 m wide maintenance strip around our flood defences, so that we can get diggers and machinery in to maintain them.

It is important to realise that PPS 15 is Planning NI policy – NOT Rivers Agency

After April 2015, your planning staff assisted by Rivers Agency, will be making decisions based on PPS 15.

Rivers Agency Flood Maps

Why

- To meet requirements of the Floods Directive.
- Provide information for those at risk to make informed decisions – public, developers, government.
- A primary tool in the planning consultation process.

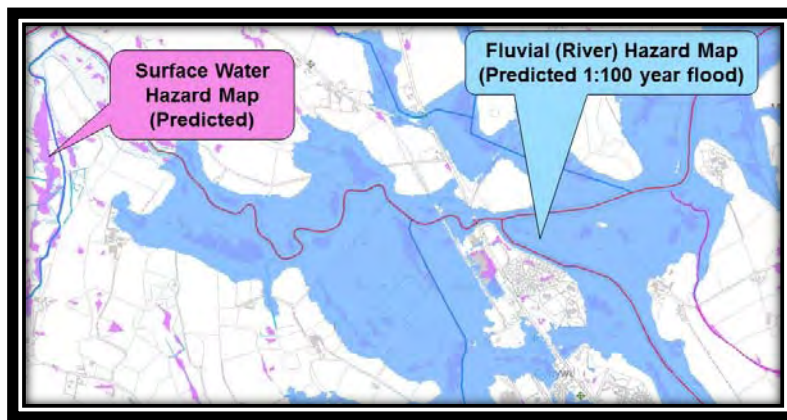
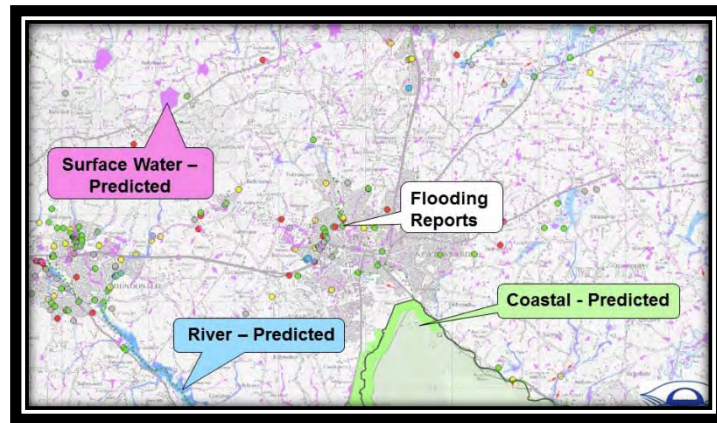
What

- Predictive coastal, river and surface water flooding:
 - Extents.
 - Flood levels.
- Historical flood events
 - Extents.
 - Photographs.
 - Properties affected.

Why do we have the flood maps?

In short, to meet the requirements of the European Union Floods Directive

Over the last number of years, Rivers Agency has expended significant resources and money in preparing these maps.



This is an opportune moment to go into more detail about surface water flooding.

Also known as pluvial flooding.

It is caused by very intense rainfall.

That cannot soak into the ground and thus ponds in low-lying areas

Why does the water not soak into the ground?

It is very steep and flows off it,

The ground is saturated,

The soil is heavy clay

And in urban areas, you have the **ABC** of development

- Asphalt
- Bitmac
- Concrete

Surface water is a serious problem in Northern Ireland, affecting around **20000** properties, approximately **2 %** of all properties.

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