



# Flooding and Environmental Protection

## Topic Paper No 2 - Summary

### Introduction

Planning and environmental protection are separate but related issues. The planning system controls where development can take place and what land use operations may be carried out and therefore has an important role in avoiding or minimising the adverse effects of any environmental risks on present or future land uses. Special attention also need to be given to minimising and managing the risks associated with climate change by ensuring that new development is adaptable and resilient to future changes.

### Context

The broader context for flooding and environmental management is set out in Planning Policy Wales. The Welsh Government objectives are to:

- Maximise environmental protection for people, natural and cultural resources, property and infrastructure
- Prevent or manage pollution and promote good environmental practice.

In achieving these objectives it is essential that the planning system works effectively alongside the various other regulatory regimes such as Welsh Water and Natural Resources Wales. As part of the consideration of certain planning applications for development which are likely to have significant environmental effects then

an Environmental Impact Assessment will be required. However, it is essential that the Plan undertakes a higher level assessment in order to ensure that its policies and proposals will not result in environmental harm and this will be achieved through a Sustainability Appraisal (SA), Strategic Environmental Assessment (SEA) and Habitats Regulations Assessment (HRA).

The County is diverse in terms of its physical, social and economic make up and this brings with it particular flooding and environmental protection issues. Much of the coastal strip along the A548, as well as Deeside Industrial Park and Sealand is low lying and at risk from flooding but there are also areas along key rivers such as, the settlements along the River Alyn. There are also other hot spots where flooding can occur either as a result of fluvial or surface water and drainage problems. Deeside Industrial Park and Hawarden Industrial Park is one of the key economic drivers of Wales where there is a wide range of industrial processes present. Former industrial areas have left behind them problems associated with contaminated land. The County also has a mining legacy with issues surrounding unstable land. In parts of the County this mining legacy has led to landfill which has taken place and is still taking place.

The County is also a strategic transport corridor in terms of the A494 and A55 representing key gateways into North Wales with heavy volumes of traffic passing through, in addition to local traffic and this can bring with it air quality issues. The R. Dee is a source of drinking water for parts

of North East Wales and Cheshire and it is essential that the quality of watercourses and water bodies throughout the County and beyond is maintained and enhanced. Other environmental protection issues relate to noise and light pollution.

These issues when combined present a challenge when preparing the development plan in terms of the scale and distribution of growth and development. However, this is exacerbated by the effects of climate change as the County is experiencing changing and increased threats, particularly as a result of flooding whether through more extreme weather patterns or tidal surges. Nevertheless, our knowledge and information about such risks is improving and it is essential that the Plans policies and proposals are based on a sound and robust evidence base.

## The role of the Plan

To deliver development which has regard to flooding and a wide range of environmental protection issues and which as regard to the effects of climate change.

**Flooding** - The preparation of the Plan must have regard to both the likelihood of flooding occurring as well as the consequences of flooding in terms of the speed and depth of flooding. In doing so the planning system needs to move away from flood defence and the mitigation of the consequences of new development, towards a more positive avoidance of development in areas defined as being of flood hazard. A precautionary approach should be adopted when formulating development plan policies i.e. on the basis that climate change is likely to increase the risk of coastal and river flooding as a result of sea level rise and intense rainfall.

A strategic approach to flood risk should be adopted by considering the catchment as a whole, ensuring that new development is not exposed unnecessarily to flooding, having regard to the cumulative effects of development. Furthermore, new development should not increase the risk of flooding elsewhere. Recognition must be given to the fact that the hard

engineered flood defences to protect development is unlikely to be sustainable in the long term, particularly as Welsh Government resources are directed at protecting 'existing' developments and not future development. In preparing the development plan careful consideration will need to be given to the location of certain types of vulnerable development, particularly in C1 and C2 Flood risk areas.

**Unstable and Contaminated Land** - The planning system should guide development to lessen the risk from natural or human made hazards, including the risks from land instability and land contamination. The aim is to ensure that development is suitable on such land and that the physical constraints, including the impacts of climate changes, are taken into account (recognising that responsibility rests with the developer).

In terms of contaminated land, the Plan will need to take into account:

- New development only being undertaken where there is an understanding of the risks
- Not permitting or allocating development unless appropriate mitigation is in place
- Understanding the impacts of remediation on the natural and historic environment.

In terms of unstable land the development plan must ensure that:

- New development is not undertaken without an understanding of the risks
- Development does not take place without appropriate precautions
- Development is not allowed if expensive engineering projects, which have implications for the public purse will be required.
- Unstable land is restored to safeguard investment, and where practicable a return to productive use

**Air and Water Quality** – the planning system should determine whether a development is an acceptable use of land and also have regard to the proximity of potential sources of pollution. In exercising the planning function, the Council should assume that the relevant pollution control regimes will be properly applied and enforced by the relevant agencies, and should not seek to duplicate such controls. The development plan will need to consider the effects which proposed development, and the transport demand associated with them, may have on air and water quality and also the effects which air and water quality may have on proposed developments. The Plan may seek to control the location of potentially polluting developments and should set out criteria against which they are assessed. The Plan will need to set out policies to ensure that incompatible uses of land are separated, in order to reduce the potential for conflict. Realistic provision can be made in the Plan for the types of development that may be detrimental to amenity, conservation interests, or a potential source of pollution.

**Noise and Light Pollution** – Noise can affect people's health and well-being and have a direct impact on wildlife and local amenity. The planning system should seek to minimise emissions and reduce ambient noise levels to an acceptable standard. In terms of lighting there is a need to balance the provision of lighting to enhance safety and security to help in the prevention of crime and to allow recreational activities to take place, with the need to:

- Protect the natural and historic environment
- Retain dark skies where appropriate
- Prevent glare and respect the amenity of neighbouring land uses
- Reduce carbon emissions associated with lighting.

The development plan should have regard to the following factors:

- Noise sensitive developments (hospitals, schools, houses) that need to be located close to existing transport infrastructure to facilitate

- access, are designed to limit noise levels
- Noise sensitive developments should be located away from existing sources of significant noise (airports, some industrial activities or major infrastructure works)
- As far as possible locating potentially noisy developments in areas where noise will not be such an important consideration or where the impact can be minimised.
- Set out policies to control light pollution arising from new development

## Key Plans and Strategies

### Flooding:

- EC Directive 2007/60
- Flood Risk Regulations (2009)
- Flood & Water Management Act 2010
- Planning Policy Wales Edition 6 ( Feb 2014)
- TAN 15 Development and Flood Risk (2004)
- TAN14 Coastal Planning (1998)
- Development Advice Maps
- Flintshire Local Flood Risk Management Strategy (2014)
- Dee Catchment Flood Management Plan (2010)
- NW England & N Wales Shoreline management Plan 2 (2010)
- Welsh Water Surface Management Strategy

### Water Quality

- EC Water Framework Directive (2000/60)
- Water Environment (Water Framework Directive) Regs (2003)
- River Basin management Plans

### Air Quality

- Air Quality (Wales) Regulations (2000)
- Air Quality Strategy for England, Scotland and Wales (2007)

### Noise

- Environmental Noise (Wales) Regs (2006)
- Environmental Noise (Identification of Noise

Sources (Wales) Regs 2007

- TAN11 Noise
- TAN12 Design
- Wales Noise Mapping
- Draft Wales Noise Action Plan

### **Light**

- TAN12 Design
- Clean Neighbourhoods and Environment Act 2005

### **Contaminated Land**

- Environmental Protection Act 1990 (amended by Environment Act 1995)

### **Issues to be addressed by the Plan**

- Understanding flood risk in the County (Strategic Flood Consequences Assessment – Part 1) [tidal, fluvial and local sources]
- Assessing potential ‘areas of search’ and development sites in terms of flooding (Strategic Flood Consequences Assessment – Part 2) [tidal, fluvial and local sources]
- Understanding the effects of Climate Change
- Identifying key areas / sources of pollution in terms of possible development sites (pollution, noise, air and water quality etc)
- Identifying physical constraints to development in terms of contaminated and unstable land (having regard to ‘Site Search Sequence’ in PPW and preference for use of brownfield land)
- Addressing noise and light pollution issues through design measures
- Addressing impacts on the water environment through abstraction (see Infrastructure Topic Paper)
- Design of development to reduce surface water run-off and reduce water usage.
- Design of development to be adaptable and resilient to future effects of climate change
- Ensuring capacity for waste water treatment exists or can be made available to facilitate new development

### **Potential Land use Policies / proposals**

Within the UDP, Chapter 17 Energy, Waste and Pollution contains policies relating to pollution, noise and light, contaminated and derelict land, unstable land, flood risk and water resources. It is proposed that the broad structure of these policies is retained and reviewed and that consideration is given to a simplification of policies where policy guidance is available elsewhere. A possible list of key policies is along the lines of:

- Flood Risk
- Water Resources (See Infrastructure Topic Paper)
- Pollution, noise and light
- Derelict, contaminated and unstable land
- Design quality