

Glossary of terms

Appraisal

The process of defining objectives, examining options and evaluating costs, benefits, risks, opportunities and uncertainties before a decision is made.

Annual exceedance probability (AEP) is the probability associated with a return period. Thus an event of return period 50 years has an AEP of $1/T$ or 0.02 (2%)

Area of Outstanding Natural Beauty (AONB)

Areas of Outstanding Natural Beauty (AONBs) were formally designated under the National Parks and Access to the Countryside Act of 1949 to protect areas of the countryside of high scenic quality that cannot be selected for National Park status due to their lack of opportunities for outdoor recreation (an essential objective of National Parks). The Natural England is responsible for designating AONBs and advising Government and others on how they should be protected and managed. Further information on AONBs can be found at <http://www.aonb.org.uk/>

Catchment

A surface water catchment is the total area that drains into a river. A groundwater catchment is the total area that contributes to the groundwater component of the river flow.

Catchment Flood Management Plan (CFMP)

Catchment Flood Management Plans (CFMPs) are a large-scale strategic planning framework for the integrated management of flood risks to people and the developed and natural environment in a sustainable manner.

Defra

Department for Environment, Food and Rural Affairs. The department of central government responsible for flood management policy in England.

DG5 register

Register held by water companies United Utilities in North West on the location of properties at risk of sewage flooding problems.

Environmentally Sensitive Areas (ESA)

ESA schemes were introduced by the Ministry of Agriculture, Fisheries and Food (MAFF; predecessor to DEFRA) in 1987 and are designated under the provisions of sections 18 and 19 of the 1986 Agriculture Act and Environmentally Sensitive Area (Stage II) Designation (Amendment)(No2) Order 2001. They are governed by DEFRA and offer incentives (on a 10 year agreement with a 5 year break clause) to encourage farmers to adopt agricultural practices which would safeguard and enhance parts of the country of particularly high landscape, wildlife or historic value

Further detail can be found on DEFRA's website:

<http://www.Defra.gov.uk/erdp/schemes/landbased/esas/esasindex.htm>

Flood Defence

A structure (or system of structures) for the alleviation of flooding from rivers or the sea.

Flood and Water Management Act (FWMA)

The Flood and Water Management Act provides for better, more comprehensive management of flood risk for people, homes and businesses, helps safeguard community groups from unaffordable rises in surface water drainage charges and protects water supplies to the consumer.

The Act implements Sir Michael Pitt's recommendations requiring urgent legislation, following his review of the 2007 floods.

The Act will need to be commenced by ministerial order before it comes into effect; however, it is important to recognise many of the authorities who will have new duties and powers under the Act are already getting on with managing flood risk.

Floodplain

Any area of land over which water flows or is stored during a flood event or would flow but for the presence of flood defences.

Flood Risk

The level of flood risk is the product of the frequency or likelihood of the flood events and their consequences (such as loss, damage, harm, distress and disruption).

Flood Risk Assessment

An assessment carried out by planning authorities, developers and applicants of flood risk and runoff and implications of land use applications or proposals, appropriate in scale and nature to the development proposal.

Flood Risk Management

The activity of modifying the frequency or consequences of flooding to an appropriate level (commensurate with land use), and monitoring to make sure that flood risks remain at the proposed level. This should take account of other water level management requirements, and opportunities and constraints.

Flood Risk Regulations

The Flood Risk Regulations implement the requirements of the European Floods Directive, which aims to provide a consistent approach to managing flood risk across Europe. The approach consists of a six-year cycle of planning based on a four-stage process of:

- Undertaking a Preliminary Flood Risk Assessment (PFRA).
- Identifying flood risk areas.
- Preparing flood hazard and risk maps.
- Preparing flood risk management plans.

Flood zones

More accurate and consistent data on flood risk than the Indicative Floodplain Map (IFM) introduced in July 2004.

PPG25 defines Flood zones as:

- Zone 1 – little or no risk with an Annual Probability of flooding from rivers and the sea of less than 0.1 per cent
- Zone 2 – low to medium risk with an Annual Probability of flooding of 0.1-1.0 per cent from rivers and 0.1-0.5 per cent from the sea
- Zone 3 – high risk with an annual probability of flooding of 1.0 per cent or greater from rivers and 0.5 per cent or greater from the sea.

Geomorphology

Processes of erosion, deposition and sediment transport that influence the physical form of a river and its floodplain.

Groundwater

Water occurring below ground in natural formations (typically rocks, gravels and sands).

Hydrological Model

Estimates the flow in a river arising from a given amount of rainfall falling into the catchment. Such models typically account for factors such as catchment area, topography, soils, geology and land use.

Hydraulic Model

A simplified representation of flow within a river system. Used within the CFMP to test the influence of flood risk management measures on flooding.

Indicative Standard of Protection

The range of level of protection to be considered for flood defences, based upon the use of the land being protected. They do not represent any entitlement to protection or minimum level to be achieved. The standard of defence is quantified by the return period of the flood from which property is defended.

Various forms of activity relating to the way agricultural, forestry, etc practice.

Local Development Documents (LDD)

All development plan documents that will form part of the statutory (LDDs) development plan, as well as supplementary planning documents that do not form part of the statutory development plan.

Lead Local Flood Authority

The Floods and Water Management Act 2010 Act gives County Councils or Unitary Authorities a new leadership role in local flood risk management. They have become the lead local flood authority, with responsibility for development, maintaining and applying a local flood risk strategy.

Local flood risk is defined as a risk of flood arising from surface run-off groundwater or an ordinary watercourse, which includes a lake or pond which flows into an ordinary watercourse.

Local Development Framework

These statutory land development plans generally cover a 10-year period from the date of their adoption. However, the local authorities currently review these plans on a 5-yearly basis. A District Council and a Unitary Authority will produce a Local Plan and a County Council produce a Structure Plan. A Structuring Plan guides the Local Plans of several District Councils.

Local Biodiversity Action Plan (LBAP)

A local agenda (produced by the local authority) with plans and targets to protect and enhance biodiversity and achieve sustainable development. The Agency is committed to Biodiversity Action Plans and works with central government (Rio Earth Summit, 1992) to realise LBAP objectives.

Main River

Watercourses defined on a 'Main River Map' designated by Defra. The Environment Agency has permissive powers to carry out flood defence works, maintenance and operational activities for Main Rivers only. Responsibility for maintenance however rests with the riparian owner (the landowner)

Major Incident Plan (MIP)

A Major Incident Plan for flooding can be defined as- A plan which describes the multi agency response arrangements for dealing with major floods, occurring in exceptional circumstances, in locations with significant populations, where special measures are deemed necessary.

National Nature Reserve (NNR)

National Nature Reserves are designated under the National Parks and Access to the Countryside Act 1949 or the Wildlife and Countryside Act 1981 (as amended) primarily for nature conservation, but can also include sites with special geological or physiographic features. All NNRs are "nationally important" and are usually owned or leased by Natural England, or managed in accordance with a Nature Reserve Agreement with the landowner or occupier.

National Parks

The National Park Authority's duties and powers are derived from a number of Acts of Parliament and statements of Government Policy, most recently the Environment Act 1995. The statutory purposes of National Parks, which the Authority has the duty to pursue, are:

- to conserve and enhance the natural beauty, wildlife and cultural heritage of the area

- to promote opportunities for the understanding and enjoyment of the area's special qualities by the public

For further information please consult the National Park Authorities website:

<http://www.anpa.gov.uk/>

Ordinary Watercourses

All watercourses not designated as Main River, COWs or IDB watercourses. The operating authority (local authority or IDB) has permissive powers to maintain them but the responsibility to do so rests with the riparian owner.

Planning Policy Statement 25: Development and Flood Risk (PPS25)

Planning Policy Statement 25 (PPS25) sets out the Government's spatial planning policy on development and flood risk.

The March 2010 edition replaces the earlier version of PPS25 published on 7 December 2006.

PPS25 replaced Planning Policy Guidance 25: Development and Flood Risk (PPG25), published in July 2001.

Probability of occurrence

The probability of a flood event being met or exceeded in any one year. For example, a probability of 1 in 100 corresponds to a 1 per cent or 100:1 chance of an event occurring in any one year.

Ramsar Site

A wetland site of international importance designated under the Ramsar Convention.

RFCC

Regional Flood and Coastal Committee – sets local levy and work programme for flooding and coastal erosion works. There is a North West of England RFCC.

Risk Assessment

Considerations of the risks inherent in a project, leading to the development of actions to control, mitigate or accept them.

Scenario

A possible future situation, which can influence either catchment flood processes or flood responses, and therefore the success of flood risk management policies/measures. Scenarios will usually comprise combinations of the following:

Urban development (both in the catchment and river corridor); change in land use and land management practice (including future environmental designations); or Climate Change.

Scheduled Monuments, Scheduled Ancient Monuments (SAM)

To protect archaeological sites for future generations, the most valuable of them may be “scheduled”. Scheduling is the process through which nationally important sites and monuments are given legal protection by being placed on a list, or ‘schedule’. English Heritage identifies sites in England, which should be placed on the schedule by the Secretary of State for Culture, Media and Sport. The current legislation, the Ancient Monuments and Archaeological Areas Act 1979, supports a formal system of Scheduled Monument Consent for any work affecting a designated monument.

Further information can be found on English Heritage’s website: <http://www.english-heritage.org.uk/>

Shoreline Management Plan (SMP)

Non-statutory plans to provide sustainable coastal defence policies (to prevent erosion by the sea and flooding of low-lying coastal land), and to set objectives for the future management of the shoreline. They are prepared by the Agency or maritime local authorities, acting individually or as part of coastal defence groups.

Site of Special Scientific Interest (SSSI)

Sites of Special Scientific Interest (SSSIs) are notified under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way (CROW) Act 2000 for their flora, fauna, geological or physiographical features. Notification of a SSSI includes a list of operations that may be harmful to the special interest of the site. The Wildlife and Countryside Act 1981 (provisions relating to SSSIs) has been replaced by a new Section 28 in Schedule 9 of the CROW Act. The new Section 28 provides significantly enhanced protection for SSSIs. All SPAs and Ramsar sites are designated as SSSIs.

Special Area of Conservation (SAC)

An internationally important site for habitats and/or species, designated as required under the EC Habitats Directive. A cSAC is a candidate site, but is afforded the same status as if it were confirmed.

SACs are protected for their internationally important habitat and non-bird species. They also receive SSSI designation under The Countryside and Rights of Way (CROW) Act 2000; and The Wildlife and Countryside Act 1981 (as amended).

For further details refer to the following The Joint Nature Conservation Committee website

http://www.jncc.gov.uk/ProtectedSites/SACselection/UK_SAC_map.htm

Standard of Protection

The flood event return period above which significant damage and possible failure of the flood defences could occur.

Strategy Plan

A long-term (usually 50 years or more) documented plan for river or coastal management, including all necessary work to meet defined flood and coastal defence objectives for the target area. A Strategy Plan is more detailed and usually covers a smaller area than a CFMP or SMP.

Strategic Environmental Assessment (SEA)

The application of EIA to earlier, more strategic, tiers of decision-making policies, plans and programmes. The practical application of SEA is still in its infancy in the UK, but will become a statutory requirement when implemented through an EC Directive (anticipated in 2004).

For further detail please consult Defra's website:

<http://www.Defra.gov.uk/environment/rtgea/6.htm>

Sub-catchment

The catchment, for which each CFMP is to be produced for, is split into sub-catchments to ease the analysis of flooding in the catchment.

Surface Water Flooding

Surface water flooding is the flooding that occurs from excess water that runs off across the surface of the land and does not come from a watercourse. There is very limited information available about flooding from this source.

Sustainability

Sustainability is a concept, which deals with mankind's impact, through development, on the environment. Sustainable development is 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987). It is the degree to which flood risk management options avoid tying future generations into inflexible or expensive options for flood defence. This usually includes consideration of other defences and likely developments as well as processes within a catchment. It should also take account, for example, of the long-term demands for non-renewable materials.

Sustainable Drainage Systems (SuDs)

A sequence of management practices and control structures designed to drain surface water in a more sustainable fashion than some conventional techniques (may also be referred to as sustainable drainage techniques).

UKCP09

UKCP09 is the fifth generation of climate change information for the UK, and its projections are based on a new methodology designed by the Met Office. Climate science and computer modelling have advanced significantly – UKCP09 reflects scientists' best understanding of how the climate system operates, how it might change in the future, and allows a measure of the uncertainty in future climate projections to be included. No climate model can give a single definite answer to what the future will look like.

Users have asked for information about the uncertainties associated with future climate information. UKCP09 shows a range of possible outcomes and the probability of each outcome, based on how much evidence there is for different levels of future climate change.

Water Framework Directive (WFD)

European Community Directive (2000/60/EC) on integrated river basin management. The WFD sets out environmental objectives for water status based on: ecological and chemical parameters; common monitoring and assessment strategies; arrangements for river basin administration and planning; and a programme of measures in order to meet the objectives.

For further detail, consult the European Commission website:

http://europa.eu.int/eurlex/pri/en/oj/dat/2000/l_327/l_32720001222en00010072.pdf

Water Level Management Plan (WLMP)

A document setting out water level management requirements in a defined floodplain area (usually a SSSI) which is designed to reconcile different requirements for drainage.