

Devon County Council and the Environment Agency share the ultimate aim of seeking to achieve sustainable development and within this the conservation and enhancement of the water resource and biodiversity

This guidance note explains how flood risk should be considered when submitting a planning application.

This Planning Policy Guidance note 25 states that:

- the susceptibility of land to flooding is a material planning consideration;
- the Environment Agency has the lead role in providing advice on flood issues, at a strategic level and in relation to planning applications;
- planning authorities should recognise the importance of functional flood plains, where water flows or is held at times of flood, and avoid inappropriate development on undeveloped and undefended flood plains
- developers should fund the provision and maintenance of flood defences that are required because of the development; and
- planning policies and decisions should recognise that the consideration of flood risk and its management needs to be applied on a whole-catchment basis and not be restricted to flood plains.

General Development Control Guidance

The susceptibility of land to flooding is a material consideration in determining planning applications. The potential consequences for occupiers, either of the development or elsewhere, in terms of personal safety and financial risk can be serious. Planning applications should therefore assess the risk posed by the development (e.g. possible effects on flood risks elsewhere in terms of effecting flood flows and flood storage capacity and any run-off implications), and consider the specific risk of flooding to the proposed development over its expected lifetime.

In preparing their proposals applicants should discuss with the Environment Agency the requirements they will be expected to meet on flood risk and run-off implications, applicants may also be required to carry out an assessment of flood-risk. Failure to follow and act on the Environment Agency's advice may lead to delay in determining the application and could, in some cases, be a reason for refusal.

Applications relevant to flood risk

Applications likely to require particular consideration of flood risk issues include those for development:

- within a river flood plain or flood zone shown on the indicative flood plain map prepared by the Environment Agency;
- within a coastal flood plain, including that adjacent to the tidal length of a river, shown on the indicative flood plain map prepared by the Environment Agency;
- within or adjacent to any watercourse, particularly where there might be potential for flash flooding;
- adjacent to or including any flood bank or other flood control structure;
- situated in an area where the Agency have indicated that there may be drainage problems;
- likely to involve the culverting or diverting of any watercourse; or
- of such a size or nature relative to the receiving watercourse/drainage system that there could be a significant increase in surface water run-off from the area.

Sustainable Drainage Systems (SuDS)

The disposal of surface water is a material consideration for local planning authorities in determining individual land-use planning proposals. Development reduces surface permeability by replacing vegetated ground with roofs and paved areas and through compaction of other areas by vehicular movements. This reduces the amount of water infiltrating into the ground and increases surface run-off. Any built-up area therefore needs to be drained to remove excess water. Traditionally this has been done using underground pipe systems designed for quantity, to convey water away as quickly as possible and thus prevent flooding locally. This increases the speed of run-off and can change the flooding regime of the catchment. However the Environment Agency now requires the use of sustainable drainage systems to control surface water run-off this involves moving away from traditional piped drainage systems to engineering solutions that mimic natural drainage processes.

A wide range of sustainable drainage options are available including:

- preventive measures e.g. rain-water recycling, good-practice design and maintenance;
- filter strips and swales – vegetated landscape features with smooth surfaces and a gentle downhill gradient to drain water evenly off impermeable surfaces, mimicking natural drainage patterns;
- filter drains and permeable and porous pavements – permeable surfaces to allow rainwater and run-off to infiltrate into permeable material placed below ground to store water prior to discharge;
- infiltration devices - below-ground or surface structures to drain water directly into the ground (soakaways, infiltration trenches, swales with infiltration and infiltration basins), which may be used at source or the run-off may be conveyed to the infiltration area in a pipe or swale; and
- basins and ponds – structures designed to hold water when it rains; basins are free from water in dry weather, ponds contain water at all times and are designed to hold more when it rains; examples include detention basins, balancing/attenuation ponds, flood storage reservoirs, lagoons, retention ponds and wetlands/reed beds.

The choice of which SuDS mechanism you use can depend on:

- The pollutants present in runoff
- The size of and drainage strategy for the catchment area
- The hydrology of the area and infiltration rate of the soil
- The presence of Groundwater Source Protection Zones

Developers should always seek advice from the Environment Agency on the techniques available for sustainable drainage and their suitability for proposed development or redevelopment in specific locations.

Further advice

Further general advice can be found on the Environment Agency's web site <http://www.environment-agency.gov.uk>; on Flood Risk Assessments <http://www.environment-agency.gov.uk/subjects/flood/> ; and Sustainable Urban Drainage Schemes <http://www.environment-agency.gov.uk/business/444304/502508/464710/?version=1&lang=e>; or by contacting the Agency's Devon Planning Liaison Team on telephone number 01392 316185

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