

## **Wetlands and Watercourses**

### **Which wetlands and watercourses are important for wildlife?**

The term wetland covers a wide variety of wildlife habitats including those dominated by standing open water such as lakes, ponds and seasonally flooded areas, as well as those where ground is waterlogged to varying degrees such as reedbeds, marshes, fens, mires/bogs and wet heathland. There are also coastal wetlands where there is a transition from fresh to salt water, including estuaries and salt marshes.

The unifying feature of wetlands is the dominant role of water which profoundly influences the ecological functioning of these habitats. Devon has a very wide range of wetland communities which reflect the presence of upland and lowland conditions and a variety of soils and underlying geology.

The most important wetland habitats are generally those that have not been subject to major modification by man and so retain their natural functioning. However, wildlife can colonise or adapt to a wide range of wetland conditions. For instance, amphibians and dragonflies can quickly colonise new ponds.

Watercourses are rivers, streams and other types of flowing water, including ditches, drains and canals. A range of important wildlife interests are associated with Devon's rivers including exceptional populations of otter, characteristic riverine birds such as kingfisher, dipper and grey wagtail, and fish such as salmon, trout and bullheads.

A key issue relating to wetlands and watercourses is that they are extremely sensitive and man easily affects their wildlife interest. This includes modifications such as deliberate drainage of wetlands and changes in water levels. They are particularly prone to pollution, including nutrient enrichment, and the effects can be very wide ranging.

The traditional engineering approach has been one of 'taming' wetlands and watercourses by significant modification eg the canalisation of watercourses. However, it is increasingly recognised that more natural approaches, including 'soft engineering' techniques can be preferable in terms of cost and efficiency.

### **What are the statutory requirements relating to wetlands and watercourses?**

Important wetlands are protected through their designation as sites of importance for nature conservation, eg [SSSIs](#), [SACs](#), and [County Wildlife Sites](#). Alternatively certain plant or animal species within a wetland may have statutory protection.

Most works affecting watercourses, especially main rivers, are subject to consenting regimes operated by the Environment Agency. In particular, the Water Resources Act 1991 requires that the Environment Agency's prior consent is obtained for works in, over or under main rivers, and for culverting works, dams, weirs or other obstructions in ordinary watercourses. The Environment Agency must further the conservation and enhancement of flora and fauna in all of its activities. Consents given under the Act are therefore likely to have conditions relating to nature conservation. Consents are also required from the Environment Agency where pesticide use is proposed in the vicinity of watercourses.

An important but often forgotten point is that the Land Drainage Act 1991 (under Part IVA) requires that local authorities carry out duties required by the Act in ways which will further the conservation of flora and fauna.

If developments are subject to planning control, their effects on wetland interests (such as drainage and groundwater) are usually subject to planning conditions. These are based on advice from the Environment Agency.

### **What opportunities are there for mitigation and additional wildlife gains for wetlands and watercourses?**

Wildlife interest can develop quickly in new or altered wetlands. It is therefore particularly suitable to incorporate wildlife benefits into engineering schemes through enhancing or introducing wetlands.

Where a local authority is undertaking works using Land Drainage Act powers, it should be looking for ways in which it can further conservation interests. This can involve the creation of new wetland features such as ponds and wildlife scrapes (excavated wetland depressions).

Soft engineering techniques should be used wherever appropriate. These are especially suitable for combating river erosion, and include two-stage channels, reed planting and use of woven willow.

Sustainable urban drainage systems (SUDS) are an innovative way of integrating wildlife and social benefits into the engineering-based drainage structures of a development, potentially bringing cost savings. SUDS incorporate ponds, stormwater wetlands, permeable surface carparks, detention basins and grass swales into a development. These replicate as many natural functions as possible such as smoothing flows, storing and purifying water, supporting wildlife and fish, and maintaining traditional landscapes. SUDS are now often required by the Environment Agency for new development.

Where works are undertaken on or around watercourses, there are opportunities for wildlife enhancement through incorporating provision for nesting riverine birds and bats. An example is the incorporation of nesting cavities for dippers into bridge structures.

One of the easiest ways to incorporate wildlife interest into Council and school grounds/gardens is to create a pond. This can be done as part of a wider wildlife gardening approach.

### **Where should I go for further information?**

For information about soft engineering techniques, refer to:  
RSPB, NRA and RSNC. 1994. The New Rivers and Wildlife Handbook.

English Nature. 1996. Managing ponds for wildlife.  
Individual copies of this free publication can be obtained from English Nature's Enquiry Service, tel. 01733 455100/1/2 or email at [enquiries@english-nature.org.uk](mailto:enquiries@english-nature.org.uk)

For initial information about creating ponds and wildlife gardening, the English Nature guide called '[Wildlife-Friendly Gardening](#)' is useful.