Rivers and Streams Habitat Action Plan

1. Introduction

This plan concerns all running water habitats (rivers and streams) within the county. It does not include canals, which have their own Action Plan within this BAP. Rivers were listed as a priority UK BAP habitat and subsequently within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

2. Current Status

2.1 Description of habitat

Rivers, streams and their associated riparian habitats provide an essential wildlife corridor linking fragmented habitats through often intensively farmed rural areas and built up urban areas alike and are a vital and integral part of the natural and semi-natural environment. They provide water for many wetland wildlife sites as well as providing a unique range of habitats for a diverse array of flora and fauna. These associated habitat features are often species rich (or have been in the past prior to agricultural intensification).

Most rivers in Worcestershire are typical of lowland rivers in that they meander through large floodplains. Our rivers have for the most part been significantly modified and their natural character has been reduced through the construction of weirs, flood defences, dredging, straightening and impounding, all resulting in a reduction in structural diversity and prevention of habitat regeneration. Many of our rivers and streams were straightened, deepened, re-sectioned and dredged to allow for agricultural intensification post- These modifications have caused a reduction in fish movement, loss or inaccessibility of physical habitat for fish spawning and juvenile development and a reduction in the value of aquatic flora, along with a disconnection of rivers from their floodplains, reducing t

regulations from EU Directives (e.g. Water Framework Directive) resulting in better regulation of discharges into rivers and streams.

2.2 Distribution and extent

Rivers and streams flow throughout the urban and rural areas of Worcestershire providing an arterial network for wildlife that extends into neighbouring counties. Most

Rights of Way Act 2000 contain legislation that protects specific species of flora and fauna to varying degrees and also allows for the protection of natural habitats through Designations. This protection of species and habitats has a direct impact on rivers and streams throughout the county. The legislation also places an onus on Competent Authorities to assess their work and any consents and authorisations that may have an effect upon Special Areas of Conservation (SAC), Special Protection Areas (SPA) or

resulting in seasonally dry channels. The increasing frequency of summer droughts is also placing a higher demand on our limited water supply.

Invasive plants and animals

Invasive species threaten wetland environments as they out-compete and ultimately eradicate native flora and fauna from their particular niches. Species such as the American signal crayfish *(Pacifastacus leniusculus)*, mink *(Mustela vison)*, zander *(Sander lucioperca)*, zebra mussel (*Dreissena polymorpha*), Japanese knotweed (*Fallopia japonica)*, giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glanulifera)* all risk causing considerable harm and are particularly difficult to control. The presence of dense stands of Himalyan balsam along a watercourse will also significantly increase the risk of soil erosion from the banks.

Inappropriate River Management

Culverting watercourses, retaining them in engineered walls (such as concrete, sheet piling or gabion baskets), dredging, over grazing, cattle poaching, inappropriate planting and a lack of management along riverbanks has led to a reduction in habitat diversity along rivers and streams.

Recreational Activities

Many recreational activities such as angling, off-roading, walking and boating can have a significant destructive impact if not properly regulated.

Modification for Boat traffic

Lengths of the Rivers Severn and Avon through Worcestershire have been modified for navigation. Artificial weirs and the widening, dredging and straightening of the river have resulted in a considerable loss of habitat diversity. A significant length of the River Severn was reinforced using rock armour to allow commercial shipping up as far as Worcester. This resulted in the near total loss of aquatic vegetation and the consequential reduction in aquatic fauna. Commercial shipping ceased along this part of the River Severn soon after the river engineering works was completed. The rivers are now used almost entirely by pleasure boats. The transport of sand and gravel along the River Severn by barge provides a more sustainable method of transportation.

Lack of Awareness/Information

For example, the enormous biodiversity value of features such as large woody debris has only recently been appreciated. Previously such features were removed to allow water to flow more freely but are now being deliberately installed in appropriate locations.

4. Current Action

4.1 Local Protection

The River Teme has been designated a SSSI for its associated flora and fauna. A small part of the Old River Severn SSSI is in Worcestershire at Upper Lode. The latter is designated because of its botanical, dragonfly and bird interest. The Dowles Brook is part of the Wyre Forest SSSI/National Nature Reserve (NNR) and is therefore protected under the SSSI legislation. Similarly, the Ipsley Brook flows through Ipsley Alders SSSI and is therefore protected for that section. Parts of various other rivers and streams which

The majority of watercourses in Worcestershire have been listed as LWS. Many have been listed due to

References and further information

Addy, S., Cooksley, S., Dodd, N., Waylen, K., Stockan,J., Byg, A and Holstead, K (2016). *River Restoration and Biodiversity: Nature-based solutions for restoring rivers*