

Reviving the River Wye

The Chilterns Chalk Streams Project (CCSP) aims to conserve all major chalk streams in the Chilterns Area of Outstanding Natural Beauty and to encourage enjoyment and understanding of them.

The Project achieves these aims by:

- Raising awareness of the importance of chalk streams and the need to conserve them
- Giving advice to landowners and managers on riverside management
- Practical conservation to physically improve chalk stream habitats, assess habitat quality and locate and protect rare species
- Providing education resources for schools to help children understand the chalk stream environment
- Improving physical access to the streams where appropriate, and providing information about their special qualities

Useful contacts:



Revive the Wye is a joint, community initiative by The Chiltern Society, Chilterns Chalk Streams Project, Environment Agency, The High Wycombe Society, Wycombe District Council and Wycombe Wildlife Group, which aims to conserve and protect the R. Wye and make it a special place that people can enjoy and where wildlife can flourish. The Project welcomes support from individual volunteers, community groups or local businesses. To find out how you can help visit: www.revivethewye.org.uk or contact the Project on Tel: 01494 421744



Environment Agency
Red Kite House Howberry Park
Wallingford Oxon OX10 8BD
www.environment-agency.gov.uk
Tel: 08708 506506
0800 807060 (Incident hotline)



Chiltern Society
White Hill Centre White Hill
Chesham Bucks HP5 1AG
www.chilternsociety.org.uk
Tel: 01494 771250



Wycombe District Council
Queen Victoria Road
High Wycombe Bucks HP11 1BB
www.wycombe.gov.uk
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Chilterns Chalk Streams Project
Chilterns Conservation Board
The Lodge 90 Station Road
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Tel: 01844 355500 Email office@chilternsaonb.org



Led by the Chilterns Conservation Board, the Chilterns Chalk Streams Project is a partnership of statutory agencies, local authorities and voluntary bodies committed to conserving the chalk stream environment.

www.chilternsaonb.org



How YOU can help



Why is the River Wye so important?

The River Wye is a chalk stream. Chalk streams are a globally rare habitat, confined mainly to England and North West Europe. They are home to a wide range of wildlife, including some of the UK's most threatened species.

Chalk streams are fed from water held within the underlying chalk rock and are characteristically shallow, clear and fast flowing. They have intermittently flowing upper reaches, known as 'winterbournes' that flow after winter rains and dry up during summer. Some of the rarest species living in chalk streams are specially adapted to living in winterbournes.

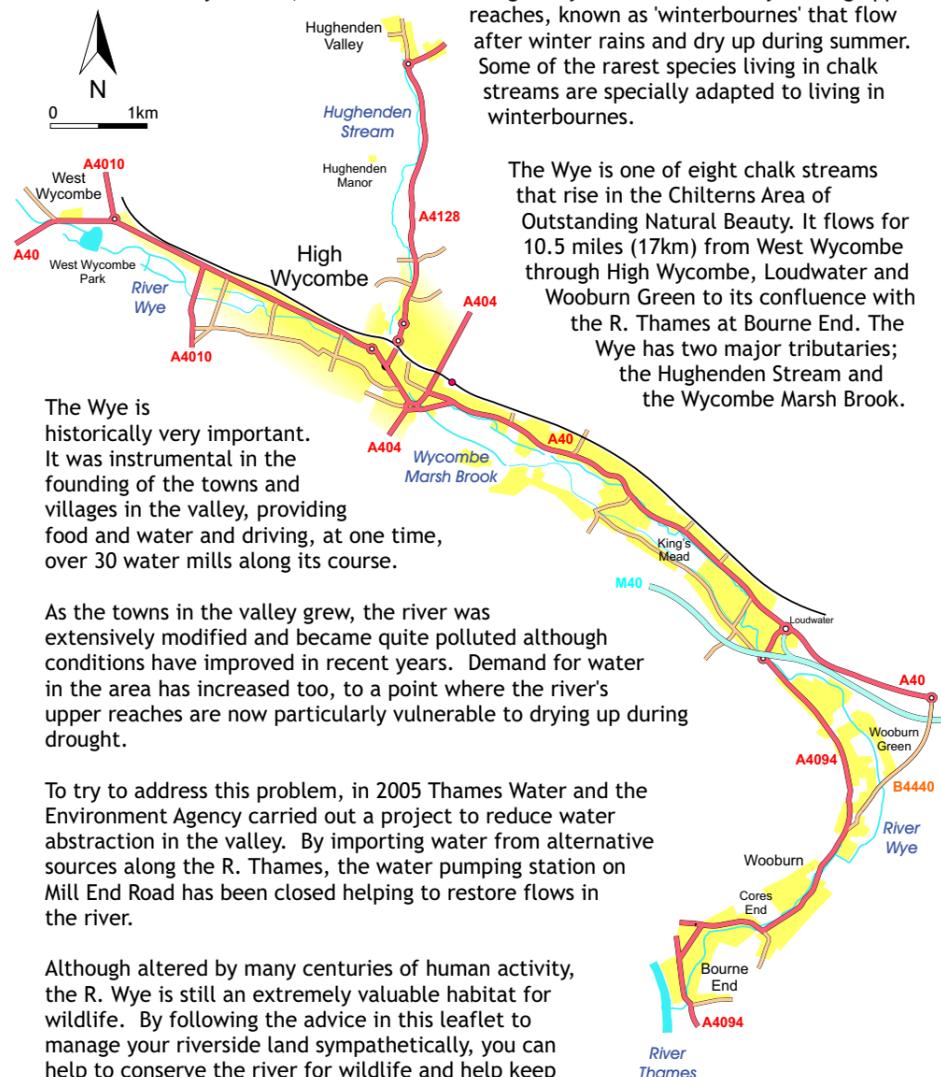
The Wye is one of eight chalk streams that rise in the Chilterns Area of Outstanding Natural Beauty. It flows for 10.5 miles (17km) from West Wycombe through High Wycombe, Loudwater and Wooburn Green to its confluence with the R. Thames at Bourne End. The Wye has two major tributaries; the Hughenden Stream and the Wycombe Marsh Brook.

The Wye is historically very important. It was instrumental in the founding of the towns and villages in the valley, providing food and water and driving, at one time, over 30 water mills along its course.

As the towns in the valley grew, the river was extensively modified and became quite polluted although conditions have improved in recent years. Demand for water in the area has increased too, to a point where the river's upper reaches are now particularly vulnerable to drying up during drought.

To try to address this problem, in 2005 Thames Water and the Environment Agency carried out a project to reduce water abstraction in the valley. By importing water from alternative sources along the R. Thames, the water pumping station on Mill End Road has been closed helping to restore flows in the river.

Although altered by many centuries of human activity, the R. Wye is still an extremely valuable habitat for wildlife. By following the advice in this leaflet to manage your riverside land sympathetically, you can help to conserve the river for wildlife and help keep the Wye special.



A haven for wildlife



Wild Brown Trout (*Salmo trutta*)
Chalk streams like the Wye are particularly important for wild brown trout. Trout thrive in the pure, oxygenated water and use the clean gravel bed to spawn during winter.



Mayfly (*Ephemera danica*)
Mayflies are a characteristic insect of chalk streams. Much of their life is spent as larvae living in burrows in the riverbed. In late May however, they rise to the surface en masse and hatch into the beautiful adults, which live for only one day.

Water crowfoot (*Ranunculus spp.*)
Water crowfoot is found in chalk streams wherever there is a good current and a clean gravel bed. It provides important habitat for invertebrates and fish and plays an essential role in maintaining water depth during the summer when flows are declining.



Undesirable species

Himalayan Balsam (*Impatiens glandulifera*)
Himalayan or Indian balsam was introduced to Britain in 1839, but escaped from gardens and rapidly colonised riverbanks and areas of damp ground. It grows in dense stands that suppress the growth of native grasses and other flora. In the autumn, the plants die back, leaving the banks bare of vegetation and vulnerable to erosion.



Signal Crayfish (*Pacifastacus leniusculus*)
Originally introduced through the aquaculture trade, signal crayfish have quickly spread in the wild. They have contributed to the drastic decline of the native white-clawed crayfish, out-competing them and spreading crayfish plague. They can also cause excessive erosion by burrowing into riverbanks.

Japanese Knotweed (*Fallopia japonica*)
Japanese knotweed was introduced to Britain in the mid-19th Century. It grows aggressively, particularly in damp conditions and can tolerate a wide range of soil conditions. It forms large stands, shading out native vegetation and can cause flooding, structural damage and reduced land values.



As a landowner or manager your actions can greatly enhance the habitats and wildlife of the River Wye and its valley environment

Undesirable Practice



Mowing

Mowing up to the river edge (picture 1) removes valuable habitat for many native species that live in the river or along the banks.



Bank modification

Banks modified with stone or wood boarding have little value for wildlife (picture 3). They reduce cover provided by natural marginal vegetation and destroy valuable habitat. As a rule soft banks and marshy margins are best for wildlife (picture 2). Although banks occasionally need to be reinforced to combat erosion there are wildlife friendly techniques that can be used. Contact the Project for further advice.



Winterbourne section

Where the river is dry for several months of the year it may be tempting to use the riverbed to: store materials, as a fire site or even as a source for soil. This should be avoided. It is illegal to dump rubbish or obstruct the river channel, even when it is dry.



Non-native plants

Avoid planting rivers and their banks with non-native species as they can suppress our native species and reduce wildlife diversity. Plants such as Himalayan balsam, Japanese knotweed and floating pennywort have all been released into the wild and are now causing great damage to river habitats countrywide.



Tipping

Dumping of garden waste and other rubbish into the river or onto banks is unsightly, damaging and dangerous. It smothers valuable habitat, causes pollution and encourages the spread of undesirable species (picture 5). It can also create a flood risk. Dispose of waste properly. Garden waste should be composted away from the river bank or removed to your local green waste recycling centre.



Water use

The River Wye relies on water stored in the ground for its flow. We also rely on this water store for our own supply. The more water we use, the less water is available to the river. Using hosepipes and pressure washers wastes large amounts of water and contributes to the problem of low flows in chalk streams.

At home



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Good Practice



Riverbank management

If your garden abuts a watercourse, leaving undisturbed habitat along riverbanks will greatly increase its value for wildlife. Removal of tall vegetation is best undertaken from the late summer through winter. Try to leave uncut areas to act as refuges for insects and cover for mammals (picture 2).



Trees

Leave occasional overhanging branches and mature trees as perching sites for kingfishers. Aim to create dappled shade as this will encourage marginal vegetation. Old trees with cavities provide roosting sites for bats and nesting sites for birds - try to retain these where it is safe to do so.



Woody debris

Avoid being over tidy. Unless it is presenting a flood risk, leave some dead wood in the river and on the banks. This wood will provide ideal habitat for invertebrates and can help to provide spawning habitat and cover for fish.



Weed management

Aquatic plants like water crowfoot are an essential feature of chalk streams. They provide food and shelter for many species and also help to maintain flow velocity and water depth during summer. If weed cutting is necessary, avoid clearing the entire channel. Also avoid heavy autumn cuts as these are particularly harmful to wildlife.



River law

The River Wye, like all rivers, is protected by legislation. As a riparian landowner you have both rights and responsibilities. Modifications to the riverbed, banks or works within 8 metres of the river, including the siting of new structures, are subject to Environment Agency approval. Stocking of rivers with fish also requires Agency consent. Don't risk breaking the law. If you are in doubt contact the Environment Agency for more information.



Save water

Try installing a water butt in your garden to collect rainwater from your roof (picture 4) or using washing up water to water the garden. Ask your water supplier to install a water meter. By saving water you can reduce your water bill and help keep the Wye flowing.

Undesirable Practice



Urban pollution

Diffuse pollution comes in many forms including industrial effluents, oils and chemicals discarded down road drains, sewerage misconnections and road runoff (picture 7). These pollutants can cause massive damage to fish, invertebrates and other wildlife and can persist in river sediments for many years. It is illegal to discharge waste into a watercourse without a licence. Do not pour waste material down drains as it may well end up in the river; dispose of it responsibly. Report any pollution incidents to the Environment Agency.



Diffuse pollution

Applications of fertiliser and pesticide close to the river are harmful to wildlife. Away from the river, surplus agro-chemicals can build up in the soil and groundwater or are washed into watercourses by rainfall. The use of buffer zones or a change to less intensive farming adjacent to the watercourse can provide protection.



Dredging

Dredging of the river to remove silt or for flood prevention should be avoided. Dredging destroys the natural bed of the river, damages habitat and increases siltation (picture 9). Where there is a flooding issue, contact the Environment Agency to discuss a sustainable solution to the problem.



Hedges

Hedges provide valuable complementary habitat along the river valley and more widely. Flailing hedges during the bird breeding season (March to August inclusive), reduces the vital protection for hedgerow species of birds. Cutting back the hedge in one go in winter removes berries, nuts and vital protection for winter birds. Try to stagger hedgerow management from October to March and ideally cut back once every three years.

At work & on the farm



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Good Practice



Buffer zones

Establishing grass and herb-rich margins of at least 3 metres width adjacent to watercourses helps stabilise riverbanks (picture 6) and provides habitat for water voles, plants and insects. The wider the field margin, the greater the capacity for reducing the impacts of agro-chemicals and soil erosion on the river. Even better is the conversion of arable areas to pasture alongside the river.



Winterbourne section

Even when the winterbourne sections have dried up they should be treated as if they are still part of the flowing river. Vegetation in the channel should be left uncut and a buffer zone along each bank should be maintained. Even along sections that have not seen flow for several years, it is vitally important to retain the channel in good condition for when flow returns.



Fencing

Fencing parallel to the river, (picture 8) keeps cattle from poaching the banks and allows the growth of marginal and emergent vegetation, helping to maintain a narrow fast flowing river. Fencing should be at least 3 metres from the river's edge. If access to water is necessary for stock, cattle drinks or powerless pumps can be used.



Pollarding and coppicing

Bank-side trees such as willows and alder can be maintained by pollarding or coppicing (picture 10). Coppicing and pollarding encourages healthy tree growth, increases light to the river which is important for healthy growth of aquatic plants and helps to extend the life of the trees. Tree work should be carried out between October and March.



Grants

Consider entering riverside land into an agri-environment scheme. Such schemes can provide funding to help create buffer zones, install fencing, carry out tree work and even fund capital works such as river channel restoration.

For further help, practical advice or information on land management issues

please telephone the Chilterns Chalk Streams Project on 01844 355500 or email office@chilternsaonb.org