

The Chilterns Chalk Streams Project 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

For more details see the project website: www.chilternsaonb.org/chalk-streams-project

Useful contacts:



The River Chess Association is a voluntary organisation that seeks to protect and enhance the River Chess by a combination of practical conservation work and lobbying. To find out how you can help visit: www.riverchessassociation.org or email riverchess@tiscali.co.uk



Environment Agency
Apollo Court, 2 Bishops Square Business Park
St. Albans Road West
Hatfield, Herts AL10 9EX
www.environment-agency.gov.uk
Tel: 03708 506506
0800 807060 (Incident hotline)



Berks, Bucks and Oxon Wildlife Trust
Water Vole Recovery Project
The Lodge, 1 Armstrong Road,
Littlemore, Oxford, OX4 4XT
www.bbowl.org.uk
Tel: 01865 775476



Three Rivers District Council
Three Rivers House, Northway
Rickmansworth, Herts Wd3 1RL
www.threerivers.gov.uk
Tel: 01923 776611



Chiltern District Council
King George V Road
Amersham Bucks HP6 5AW
www.chiltern.gov.uk
Tel: 01494 729000

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.

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Thames Rivers Trust
Restoring the Thames and its tributaries for people and wildlife

The production of this leaflet was supported by the Thames Rivers Trust

www.chilternsaonb.org

Cherishing the Chess



How YOU can help

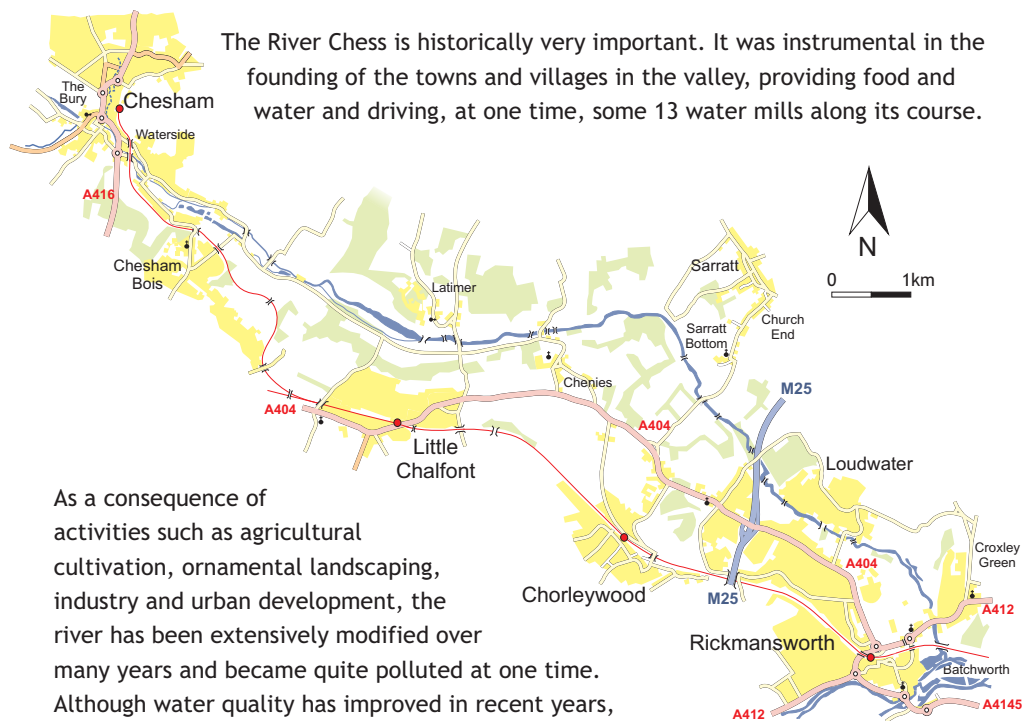


an Area of Outstanding Natural Beauty

Why is the River Chess so important?

The River Chess is one of eight chalk streams that rise in the Chilterns Area of Outstanding Natural Beauty. It flows for 11 miles (18km) from Pednormead End through Chesham, Latimer, Chenies, Sarratt Bottom and Loudwater to its confluence with the River Colne at Rickmansworth.

The River Chess 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, some 13 water mills along its course.



As a consequence of activities such as agricultural cultivation, ornamental landscaping, industry and urban development, the river has been extensively modified over many years and became quite polluted at one time. Although water quality has improved in recent years, demand for water in the area has increased to a point where the river's upper reaches are now particularly vulnerable to drying up during drought.

Despite these issues the River Chess is perhaps the most unspoilt of all the Chilterns chalk streams and is an extremely valuable habitat for wildlife. It is one of the strongholds in the Chilterns for the water vole and supports fish such as trout and grayling, along with an abundance of insect species such as the banded demoiselle damselfly and blue-winged olive mayfly. It also provides valuable sanctuary for bird species such as kingfisher, water rail, green sandpiper and even the beautiful osprey.

By following the advice in this leaflet to manage your riverside land sympathetically, you can help to conserve the river for wildlife and help cherish the Chess for future generations.

A haven for wildlife

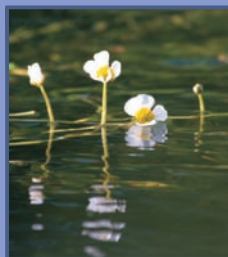
Wild Brown Trout (*Salmo trutta*)

Trout thrive in the pure, oxygenated water of chalk streams like the Chess and use the clean gravel bed to lay their eggs on in winter.



Mayfly (*Ephemera danica*)

Mayflies spend much of their life as larvae living in burrows in the riverbed. In May they rise to the surface en masse and hatch into the beautiful adult.



Water Vole (*Arvicola amphibius*)

Water voles are Britain's most endangered mammal. They can be distinguished from rats by their chubbier appearance, small ears and furry tail.



Water crowfoot (*Ranunculus spp.*)

Water crowfoot is found wherever there is good current and a clean gravel bed. It provides important habitat and plays a vital role in maintaining water depth during the summer.

Undesirable species



American Mink (*Mustela vison*)

An introduction from North America, mink have had a considerable impact on water vole and wildfowl populations where they are found. Advice on mink control can be sought from the CCSP and BBOWT.

Signal Crayfish (*Pacifastacus leniusculus*)

Originally introduced through the aquaculture trade, signal crayfish have contributed to the extinction of the native white-clawed crayfish from the River Chess. Their burrowing habit can lead to significant bank erosion.









Invasive, non-native plants

Introduced to Britain by Victorian gardeners, Himalayan balsam and Japanese knotweed (pictured) grow along riverbanks and in damp areas, forming dense stands shading out native vegetation, causing increased erosion, flooding, structural damage and leading to reduced land values.

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


Undesirable Practice

-  **Mowing**
Mowing up to the river edge (picture 1) removes vegetation and habitats for many native species that live in the river or along the banks.
-  **Bank modification**
Banks modified with concrete, stone or wood boarding have little value for wildlife (picture 3). They reduce cover provided by natural marginal vegetation and destroy water vole habitat. As a rule, soft banks and marshy margins are best for wildlife (picture 2). Sometimes, banks need to be reinforced to combat erosion. Wildlife-friendly techniques exist to provide bank protection and enhance existing revetment. Contact the Chilterns Chalk Streams 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. The river bed should not be used for these purposes. 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 along the river. Species such as Himalayan balsam and Japanese knotweed have been released into the wild and are present in the Chess Valley. It is against the law to plant or allow either of these species to grow in the wild.
-  **Tipping**
Dumping of garden waste and other rubbish into the river or on to banks is unsightly, damaging and dangerous (picture 5). It smothers valuable habitat and encourages the spread of undesirable species. 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 Chess 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



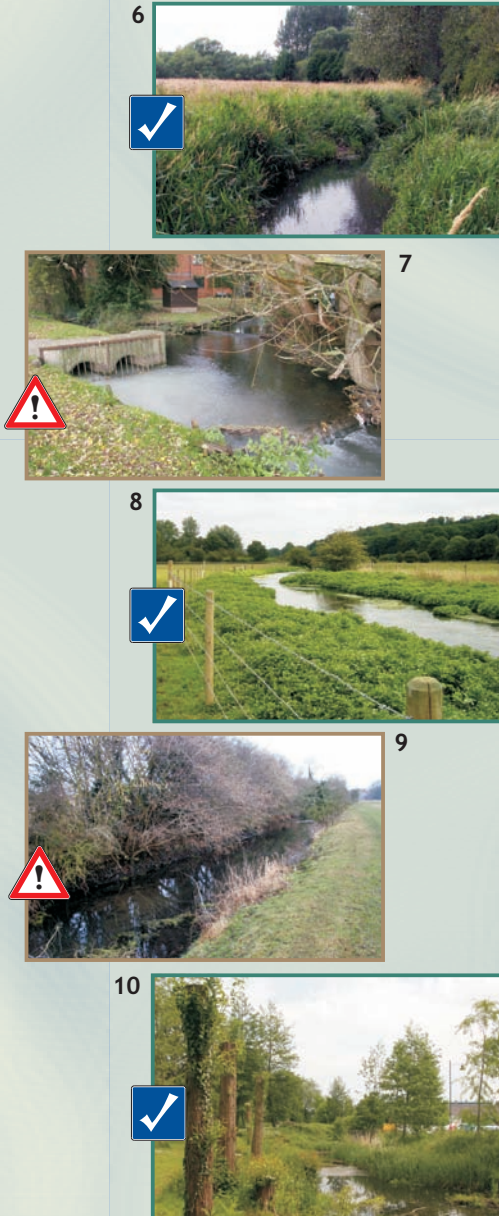
Good Practice

-  **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 - please retain these where it is safe to do so.
-  **Woody debris**
Avoid being over-tidy. Unless it is presenting a flood risk, leaving some dead wood in the river and on the banks can be very beneficial. 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 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 Chess, like all rivers, is protected by legislation. 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. Don't risk breaking the law. If in doubt please 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 River Chess flowing.







Undesirable Practice

-  **Urban pollution**
Urban 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.
-  **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.
-  **Cultivation**
Soils washed from fields by rain can pollute the river and smother the gravel bed. Ploughing with the slope exacerbates this problem. Buffer strips by the river can prevent soil from reaching the watercourse as can ploughing across the slope.
-  **Open grazing**
Open access to riverbanks by stock can cause damage to the banks. It can lead to the loss of water vole habitat by the destruction of marginal vegetation, impede river flow and increase siltation, smothering gravels needed by spawning fish and aquatic invertebrates.
-  **Dredging**
Dredging of the river and its tributaries to remove silt or for flood prevention should be avoided. Dredging destroys the natural bed of the river damaging habitat (picture 9) and can actually increase flood risk in the long term. Where there is a flooding issue, contact the Environment Agency to discuss a sustainable solution to the problem.

At work & on the farm



Good Practice

-  **Buffer zones**
Establishing grass 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.
-  **River Flow**
As landowner you have a responsibility to pass on flow without obstruction, pollution or diversion that affects the rights of others. To find out more about your rights and responsibilities, contact the Environment Agency for a copy of their publication 'Living on the Edge'.
-  **Fencing**
Fencing along the riverbank (picture 8) keeps cattle from poaching the riverbanks and allows the growth of marginal and emergent vegetation, binding the banks together and helping to maintain a narrow, fast-flowing river. Fencing should be at least 3m from the river edge to enable a healthy margin to establish. If access 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 encourage healthy tree growth, creating dappled shading of the river, whilst extending the life of the trees. Old pollards can become hollow providing important roost sites for bats and birds. Tree work should be carried out between October and March.
-  **Grants**
Consider entering riverside land into an agri-environment scheme.