

# Practical watercourse maintenance for riparian owners

A **riparian owner** is someone who owns a watercourse that runs within or adjacent to their property. For example the watercourse:

- runs on or under your land
- is on the boundary of your land

A **watercourse** is:

- any river or stream and all ditches, drains, cuts, culverts, dykes, sewers (other than public sewers within the meaning of the Water Industry Act 1991) and passages through which water flows.
- Water does not have to flow at all times of the year for it to be considered a watercourse.

A decision to carry out watercourse maintenance should be based on two main considerations:

- Flood risk management. Flood defences like walls embankments and weirs need to be maintained. Channels may need to be kept clear of obstructions to allow water to flow through them, although the extent of clearance required will depend on what is causing the blockage and the location. If large blockages are not cleared water can back up and overtop the riverbank causing flooding to local properties. In some locations some natural obstructions could be left so that flows are reduced downstream. The flow of water can also become restricted by excessive vegetation; debris such as fallen trees and branches and leaves, by man-made structures like bridges and dams and excess siltation. However, silt is often naturally moved in high flows. It is usually only necessary to remove a proportion of the vegetation to provide the necessary improvements in channel conveyance.
- Environmental protection and improvement. Watercourses are an essential source of drinking water, as well as being habitats for many animal and plant species. Both the quality of the water in the river and the physical condition of the channel and surrounding banks are impacted by management. Some ecological features of a watercourse may benefit from light management. If maintenance is not required to manage the risk of flooding it can be better to minimise work on a watercourse to reduce ecological harm and disturbance. A man-made watercourse can benefit from habitat enhancements to create a more natural environment, which may reduce maintenance requirements in the future.

## Find out more information:

<https://www.gov.uk/guidance/owning-a-watercourse>

## Video Guidance

We have a practical video, produced in collaboration with The Royal Borough of Windsor and Maidenhead. Please email [WTHMS.AP.Lower.Tribs@environment-agency.gov.uk](mailto:WTHMS.AP.Lower.Tribs@environment-agency.gov.uk) to be sent a link to download it.

## Other sources of guidance

Your local council will also offer practical guidance. For example Surrey County Council have a video and leaflet about watercourse guidance on their community web pages: <https://www.surreycc.gov.uk/people-and-community/emergency-planning-and-community-safety/emergency-planning/prepare-for-emergencies/news/take-a-look-at-our-new-resources>

## Safety Advice

One of the most important considerations when working in or near a watercourse is safety. There are a number of hazards associated with working in or near rivers:

- uneven, slippery banks and riverbed
- deep and/or fast flowing water
- floating or submerged debris
- overhanging vegetation
- effects of cold water
- Infectious diseases such as Weil's disease (Leptospirosis)

These hazards can be minimised by taking a few precautions:

- Wear suitable personal protective equipment (PPE) – as a minimum: boots or waders with adequate soles, waterproof clothing and gloves. If working around bankside vegetation, consider head and eye protection.
- Check the weather and water levels – don't enter the water if it is too deep or fast flowing or, if heavy rain is due.
- Do not work alone, always have someone with you.
- Work from the bank as much as you can – only enter the water if you have to.
- Wash your hands afterwards
- Treat cuts and scratches

## General Advice about Maintenance

Types of maintenance and management activities most likely to be considered are:

<b>Vegetation management</b>	<b>Channel Clearance</b>	<b>Channel Maintenance</b>
Weed cutting	Removing trees and branches	Repairing banks
Pruning Trees	Removing litter	Controlling livestock
Invasive Species control		Improving the river habitat
Planting marginal vegetation		

Check if you need a permit to do any major work: <https://www.gov.uk/guidance/owning-a-watercourse#get-permission> Obtain a permit (or register an exemption where relevant) from the Environment Agency if undertaking silt and/or vegetation removal with an

excavator on designated main river, or undertaking any works likely to damage or disturb the integrity of the river bank

### **You must let water flow naturally**

- You may have to remove blockages, fallen trees or overhanging branches from your watercourse, or cut back trees and shrubs on the bank, if they could obstruct or affect a public right of navigation, or reduce the flow or cause flooding to other landowners' property. Not all watercourses have a right of navigation.
- You should keep any trash screen, weir, mill gate or other structure clear
- Wholesale clearance of a long reach of channel in one go should be avoided. Managing short reaches of channel with gaps in between, or only managing one bank and half the channel width, are options which reduce the environmental impact but will still improve conveyance.
- As far as practicable, cut vegetation should be removed from the channel so that it does not float downstream and cause a nuisance to other river users or block a culvert or trash screen. If material has been cut from below the water line you can leave it on the banks for 24 hours to allow creatures to return to their habitat.
- You must take reasonable steps to ensure you do not harm or kill protected species and you must not cause environmental harm.
- It is against the law to pollute a watercourse or spread invasive non-native species.

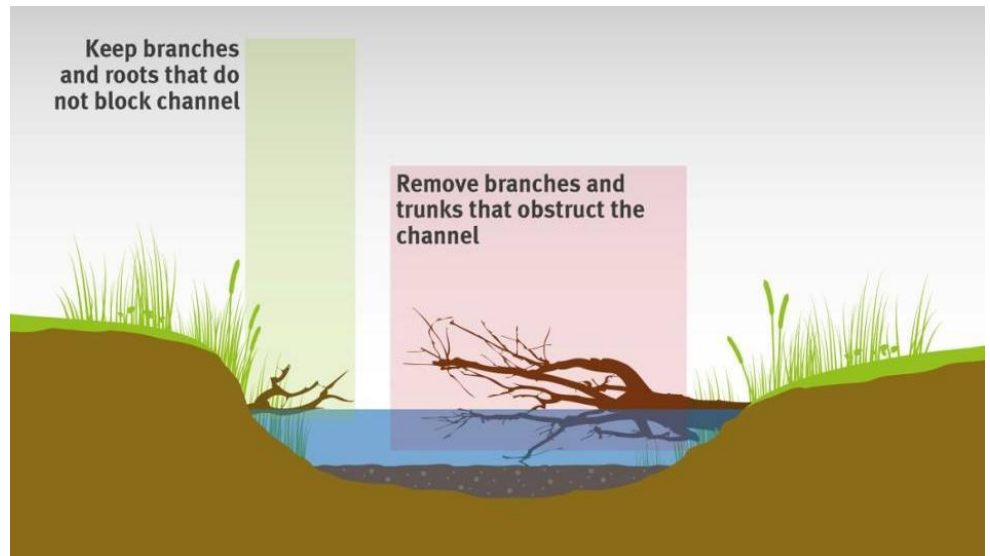
### **Timing of work**

- Avoid impacting other users of the river, for example the summer season on recreational waterways.
- Weed cutting should ideally take place late in the summer or autumn to ensure the most benefit for winter conveyance and to avoid the bird nesting season
- Tree and bush work can usually be carried out between September and Mid-February, unless nesting birds are present.

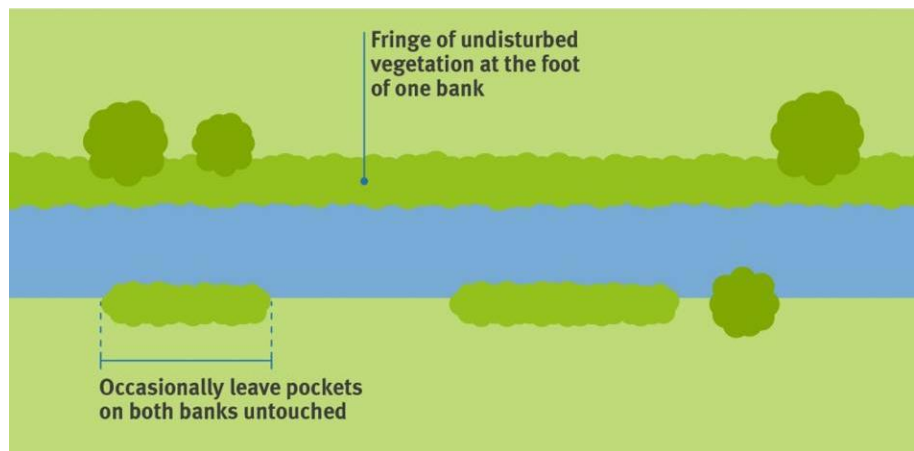
### **You should:**

- remove litter from the banks
- remove any man-made rubbish and debris that has accumulated in the channel, for example shopping trolleys, tyres, litter and household rubbish.

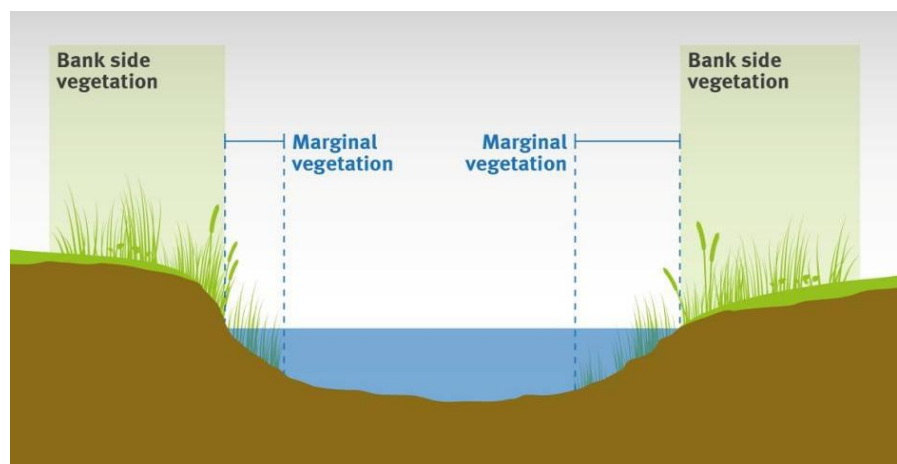
- leave dead tree branches and roots in the channel where possible - only remove them where there is an obstructed public right of navigation or if the dead wood occupies more than half the channel width or depth, or where the wood is likely to move and cause a blockage downstream. Branches and roots provide particularly good habitat for fish and invertebrates. If you do remove branches and leaves, place them in field margins for amphibians and reptiles to use for shelter. Look at where debris has collected in low branches (the 'wrack' line) to see which branches are causing an obstruction. It is better to trim back a section of the branch to improve flows during floods, rather than removing the whole branch



- if managing bankside vegetation, leave bank side vegetation uncut on one bank and where possible leave pockets on both banks untouched



- If weed-cutting is necessary, keep some marginal vegetation on both sides of the channel. As a minimum, marginal vegetation on one side of the channel should be left uncut. Lightly vegetated channels are unlikely to require management



- deposit cut vegetation well away from the top of the bank and do not block entrances to animal burrows
- ensure your work will not impact upon protected species, including water voles, white-clawed crayfish, mussels and great crested newts, or disturb spawning fish. Please visit <https://www.gov.uk/guidance/construction-near-protected-areas-and-wildlife#protected-species>. You can also check with local wildlife groups or the Environment Agency's Biodiversity team about which species may be present along your watercourse.
- Check what aquatic plants you have in your watercourse. You will need to manage your works differently depending on the plants you have. Some plants are [protected species](#) whilst others may be invasive non-native species. For guidance about managing and preventing the spread of any non-native species please visit <https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants>
- check with your local planning authority to ensure there are no Tree Preservation Orders (TPOs) on any trees you are planning to carry out works on. Please visit <https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas> for more information. Sensitive tree work, such as pollarding, can help trees, particularly willows, to live for longer. It can also create valuable riverside habitat, and prevent trees shedding large branches which may block culverts or bridges in a flood.

#### Farmland

- remove animal carcasses - contact your local council if you need advice
- leave a margin, or buffer strip, of long grass and taller plants between the edge of your crop or other managed land and the top of the watercourse bank. This buffer strip will slow, trap and filter fine sediment and pollutants
- provide water troughs to prevent livestock drinking from watercourses, or create a specific area for them to access the water

#### You must **not**:

- disturb the channel bed when you cut vegetation (minor disturbance if you are walking on the bed is fine)
- leave clippings in the channel or allow large amounts of plant fragments to float downstream. If you leave them in the water they will decay, which may reduce oxygen for fish and invertebrates.
- cut weeds in very hot weather and/or during low river flows as the risk of causing environmental damage, such as a fish kill, is much higher.
- put garden waste, including grass cuttings, on the banks or into the water. This could introduce invasive species into the natural habitat or deoxygenate the water

- disturb birds and their nests. Nesting is generally from the beginning of March to August although some birds may nest outside this period. If you find a nest, you must delay works until the eggs have hatched and the chicks have left the nest.
- disturb the spawning or eggs of salmon, trout or other fish.
- let invasive species such as Japanese knotweed spread into the wild or onto neighbours' land
- allow invasive non-native plant fragments to spread or float downstream during your works. Use a net downstream from where you are working to catch the fragments and dispose of them appropriately.
- pollute the water. Don't throw waste water, chemicals or anything else which could cause pollution on the banks or in the water. You must apply to use herbicides within one metre from the top of the bank of the watercourse.  
<https://www.gov.uk/government/publications/application-to-use-herbicides-in-or-near-water>
- reduce the flow or cause flooding to other landowners' property.
- let livestock get into the channel and trample banks.
- carry out any work in trees that bats roost in

## Find out more information

<https://www.gov.uk/guidance/owning-a-watercourse>

This link take you to a summary of your responsibilities and rules to follow for watercourses on or near your property, and permissions you need to do work around them.

## Environment Agency Annual Maintenance programme

The Environment Agency has permissive powers to carry out maintenance work to maintain flood and coastal risk management assets including channels, defences and other structures.

We want to ensure the right people are managing the right watercourses and assets in the right places – this means we must be flexible in approach and consider all the options. This includes working in partnership with communities, and local partners to take on responsibility for maintenance.

Our annual maintenance programme includes a range of activities that are prioritised and timetabled using information from inspections, maintenance standards, levels of flood risk and from legal and statutory obligations.

We review our annual maintenance programme to make sure it continues to spend taxpayers' money where it delivers the greatest flood risk benefit.

You can view the maintenance planned in your area using the interactive map:

<https://www.gov.uk/government/publications/river-and-coastal-maintenance-programme..>