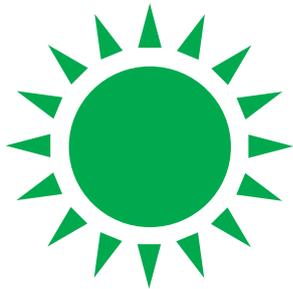


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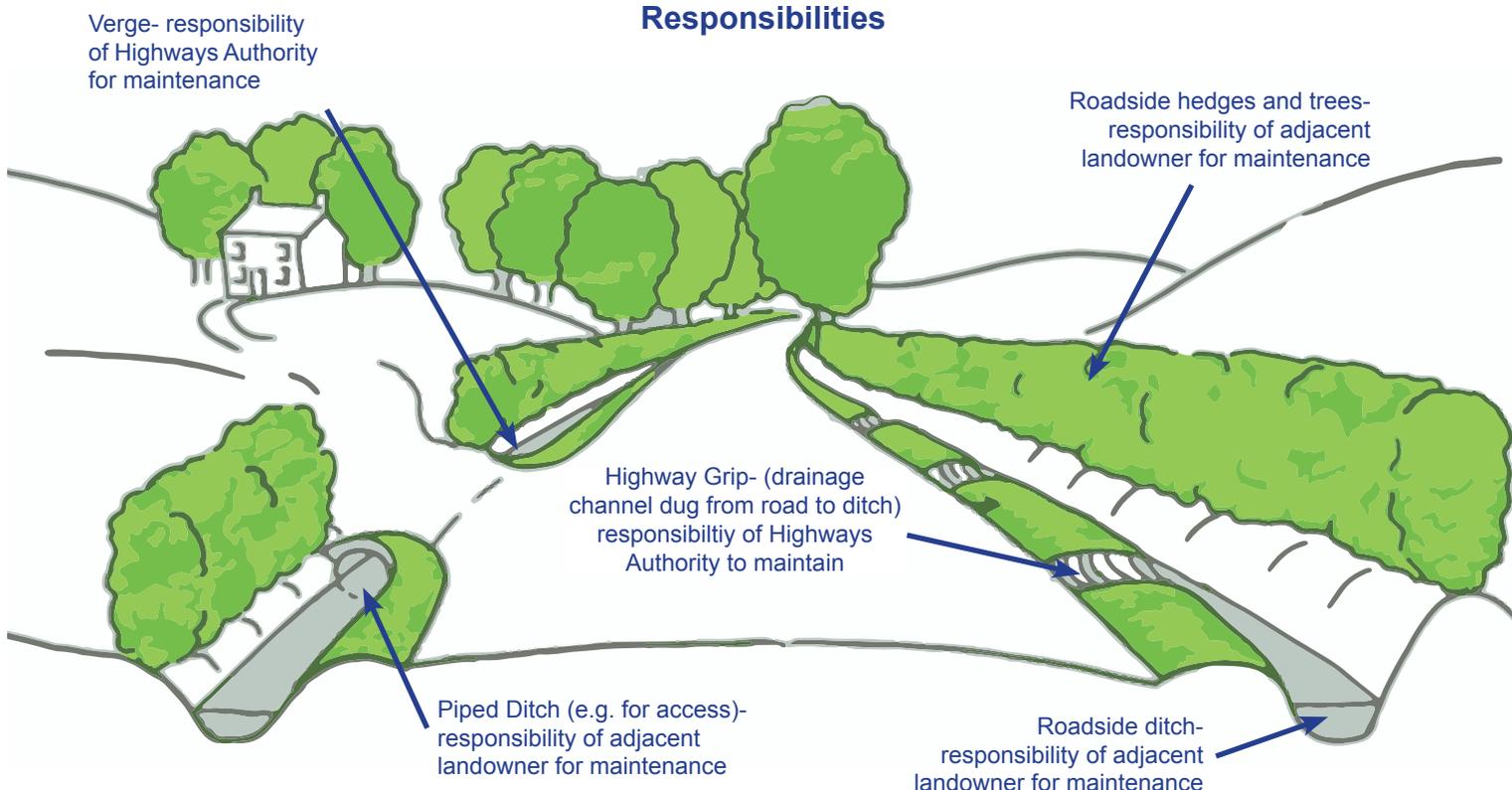
Ditches and drainage in Herefordshire Ditch Clearance Guidelines

Ditch Clearance Guidelines

Most open ditch drainage systems are historic and are the responsibility of the adjoining landowner for maintenance. Ditches that run within the limits of the highway do not usually form part of the highway

(since they do not assist the free passage of people or vehicles along the highway) and remain the responsibility of the adjacent landowner or occupier.

Ditch ownership and Maintenance Responsibilities



Why should I maintain my watercourse?

If your property contains or is adjacent to a watercourse of any description, as a riparian land owner you should be maintaining it regularly. As we experience increased levels of development and more intense and heavy rainfall events, the importance of maintaining and improving the capacity of the county's land drainage system has never been greater, for the following reasons:

- Keeping the land well drained,
- Preventing flooding by allowing water to escape efficiently,
- Preventing localised flooding,
- Controlling surface water
- Maximising all the functions that the watercourse was designed for.
- Enhancing the environment
- Reduce landowner liability
- Improving your community

What can I do to ensure I am maintaining my watercourse?

For all ditches for which you are responsible, it is good practice to develop a programme that sets out how often and at what time of the year you will carry out maintenance works. Most ditches require annual maintenance to some degree. The best time of year to undertake major clearance works is in late September/October, in preparation for increased winter flows and once vegetation has already begun to naturally die back.

For **open watercourses**, your programme should state how much vegetation you plan to cut back to ensure a free flowing watercourse. It should also identify at what intervals you will remove silt from the bed of the watercourse to maintain the capacity of the ditch.

For **culverted watercourses**, your programme should state how often you would inspect the culvert for blockages or signs of collapse.

For **structures** along your watercourse, such as weed screens, grilles, or sluices, your programme should include a routine for inspection and clearance of structures, especially including times of high flow.

a) Keep vegetation growth under control

- When trimming vegetation it is important to consider any impact on biodiversity. Mowing of banks around ditches should be minimised during the animal spawning season of March to mid July.
- It is recommended to cut only up to just above the water level on one side of the watercourse, leaving the fringe of

the bank uncut, thereby maintaining some habitat as well as enabling a clear flow in the ditch.

- Cuttings from any clearance work should be removed and kept clear of the watercourse or disposed of to avoid re entry which might cause blockages downstream.

b) Keep watercourses free of debris (e.g. litter, grass cuttings, and fallen trees)

- Any waste resulting from the maintenance of ditches should be left on top of the bank for a few days to allow any organisms within the waste to migrate back into the watercourse, after which the waste should be removed and silt should be spread onto any adjacent land.
- All non-organic waste should be completely removed off site and disposed of in an appropriate manner.
- Ensure that any disturbed debris does not end up flowing downstream and causing problems for other landowners.
- In the case of culverted (piped) watercourses, blockages within the pipe or at an inlet can cause flooding problems. These blockages can be minimised by regular inspection and the removal of debris.
- Culvert inlets often have protective grills to prevent debris entering the pipe and causing blockages. These should be cleared regularly, especially during periods of heavy rainfall when debris can accumulate very quickly.

c) Remove excess silt

- Where possible, try to maintain the original profile and cross section of the ditch when de-silting. If the gradient



is altered it can change the flow pattern and increase flood risk either upstream or downstream. Banks with a gradient of 1 in 4 allow for easy maintenance as well as being suitable for wildlife. Therefore the same depth of silt should be removed along the length of the ditch.

- Temporarily depositing silt on top of the banks of the watercourse allows for organisms to migrate back into the ditch. It is however essential that this material does not then block the highway grips and that the material is not carried on to the road.

d) Consider the environment

- Ditches can form very important habitats and may contain species of flora and fauna that are protected under the Wildlife and Countryside Act 1981. To find out if protected species have been recorded on or near your land, contact The Herefordshire Biodiversity Record Centre on 01432 260500 or hbrc@herefordshire.gov.uk or the Environment Agency on 03708 506 506
- Ensure that you undertake the majority of your clearance works after the vegetation has begun to die back in late September/October. At this time of year, there should also be no wildlife nesting or breeding in or near ditches.
- The impacts of maintenance can be minimised by using hand tools to regularly remove obstructions to the flow of water, rather than using heavy machinery that removes all vegetation.
- Plan your maintenance to ensure that stretches of habitat are left intact, for example by trimming alternate banks or lengths of ditch each year. This ensures that there is always a healthily vegetated area where fauna disturbed by maintenance can migrate to without being forced to leave the ditches.



Try and use the right tools for the job

The tools for the job depend on the scale of your ditch drainage system and the extent of works required. For property owners, the maintenance of ditches is generally best achieved using hand tools, as this is less damaging to habitats. It is better to undertake minor works regularly, such as trimming vegetation and clearance of small blockages and restrictions as they occur, rather than infrequent major destructive works, such as complete removal of vegetation and silt from all the ditches every few years.

Farmers generally have machinery on site that can clear large stretches of open ditches quickly. If using such machinery, the sensitivity of the ditches must be considered and maintenance should be planned to minimise the impact on the habitats.

For culverts, specialist tools may be needed to carry out inspections using camera surveys or to jet through or rod the culvert to clear blockages. Landowners may choose to appoint drainage companies to carry out inspections and/or maintenance. It is recommended that a range of quotes are obtained in order to achieve best value.

Make sure the works you do are legal

Whenever carrying out maintenance to watercourses and ditches, you must ensure that the works that you undertake are legal.

General maintenance is unlikely to break the law but if you wish to alter the watercourse or ditch in any way, or build near it, you are likely to require permission from the regulating body (either the Environment Agency, Herefordshire Council, Internal Drainage Board) and/or the relevant landowners.

A general rule of thumb is to avoid undertaking heavy works during the period from March to September inclusive. If protected species have been recorded in your ditches, you must ensure their habitats are not adversely affected in the long term.

Many farmers take part in Countryside Stewardship Schemes, which set clear rules for the maintenance of watercourses, including ditches. If these rules are not adhered to landowners risk breaking the rules of such agreements and may be penalised.



Remember to stay safe

When undertaking works within or adjacent to a watercourse, landowners must assess their works to ensure that they can be undertaken without putting themselves or others at any kind of risk. Due to the range of risks posed by both open and culverted watercourses, landowners should assess this on a case-by-case basis.

When undertaking ditch clearance works within the highway, adequate notice must be given to the travelling public warning of the works, particularly if the operation is working from the live carriageway. Only authorised signs should be used, actual requirements would depend on the specific location.

Further Reading and Advice

The Environment Agency booklet "Living on the Edge" contains information for riparian watercourse owners. Herefordshire Council website and leaflet "Ditches & Drainage in Herefordshire, guidance for landowners" provides information of legal responsibilities of Riparian Owners. Natural England and Association of Drainage Authorities' report "The Drainage Channel Biodiversity Manual" provides detailed advice on protecting wildlife during maintenance.